





EPA Region 10 Office of the Regional Administrator

BP Exploration (Alaska) Inc. 900 East Benson Boulevard P.O. Box 196612 Anchorage, Alaska 99519-6612 (907) 561-5111

CERTIFIED MAIL # 7016 0910 0001 1040 7087

October 29, 2018

Mr. Chris Hladick Regional Administrator U.S. Environmental Protection Agency 1200 Sixth Avenue Seattle, WA 98101

Re: Annual Report – 40 CFR 60 Subpart OOOOa

Dear Mr. Hladick:

Enclosed please find the BP Exploration (Alaska) Inc. (BPXA) annual compliance report for 40 CFR 60 Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015 (Subpart OOOOa). This report covers the annual compliance period from August 3, 2017 through August 2, 2018.

In accordance with 40 CFR 60.5420a(b)(1)(i) and (ii), the report is being submitted for the facilities shown in Table 1. All facilities are located in the Greater Prudhoe Bay (GPB) Field, which is located on the Alaskan North Slope.

Additional reporting elements are attached as follows:

- 1. Well affected facility reports in accordance with 40 CFR 60.5420a(b)(2); and
- 2. Well site fugitive emissions monitoring reports in accordance with 40 CFR 60.5420a(b)(7).

BPXA is subject to subject to fugitive emissions monitoring requirements under 40 CFR 60.5397a(f)(1) and (g)(1) for well sites located on the Alaskan North Slope. Fugitive emission surveys, resurveys, and component repairs conducted after August 2, 2018 are not included in this report.

Please note that well sites in the GPB Field are significant in geographical extent and include considerable amounts of equipment. For example, S Pad is approximately 45 acres in size and incorporates over 80 wells. It is not feasible to complete fugitive emissions monitoring surveys during a single calendar day, so surveys must be conducted over the course of multiple days. Therefore, multiple survey dates provided in this report for a given pad can represent a single survey.

Mr. Chris Hladick October 29, 2018 Page 2

Table 1. BPXA Subpart OOOOa Summary of Affected Facilities Reported

Facility Site Name	UŞ Well ID	DOOOa Summary of A Location Description	Latitude (NAD83)	Longitude (NAD83)	Affected Facility Identification
S-113BL1	50-029-23094-02-60		70.35604	-149.03412	inchinication .
S-113BL1	50-029-23433-00-00	S Pad - GPB Field	70.35360	149.03093	-
S-200A	50-029-22846-01-00	S Fau - GFB Field	70.35510	-149.03093	-
			+		Well Affected
L-118L1	50-029-23043-00-60	L Pad - GPB Field	70.35060	-149.32498	Facility
L-205	50-029-23388-01-00		70.34980	-149.32818	-
P1-20	50-029-22288-00-00	P1 Pad - GPB Field	70.39043	-148.58628	
P1-23	50-029-22690-00-00	DG 0 CDD F: 11	70.39065	-148.58357	
DS 2	50-029-23547-00-00	DS 2 - GPB Field	70.27115	-148.48667	-
DS 3	50-029-20990-01-00	DS 3 - GPB Field	70.22883	-148.28499	-
DS 4	50-029-21521-01-00	DS 4 - GPB Field	70.27359	-148.27941	_
DS 6	50-029-20179-02-00	DS 6 - GPB Field	70.24341	-148.50169	
DS 7	50-029-20847-02-00	DS 7 - GPB Field	70.26849	-148.57401	
DS 9	50-029-20188-01-00	DS 9 - GPB Field	70.24255	-148.24423	
DS 11	50-029-21394-01-00	DS 11 - GPB Field	70.27409	-148.32713]
DS 14	50-029-20970-01-00	DS 14 - GPB Field	70.23824	-148.59402	
DS 15	50-029-22651-03-00	DS 15 - GPB Field	70.29845	-148.57740	
DS 16	50-029-21441-01-00	DS 16 - GPB Field	70.21008	-148.22919	
DS 17	50-029-21259-01-00	DS 17 - GPB Field	70.20615	-148.31556	
DS 18	50-029-23543-00-00	DS 18 - GPB Field	70.29637	-148.44638	
DS L1	50-029-23563-00-00	DS L1 - GPB Field	70.33589	-148.47279	
DS L2	50-029-21758-02-00	DS L2 - GPB Field	70.30435	-148.43976	
DS L3	50-029-23575-00-00	DS L3 - GPB Field	70.29740	-148.31885	
DS L5	50-029-21694-01-00	DS L5 - GPB Field	70.33351	-148.23889	
DS NK	50-029-22540-02-00	DS NK - GPB Field	70.34723	-148.20311	Collection of
DS PM1	50-029-22690-00-00	P1 Pad - GPB Field	70.39065	-148.58357	Fugitive
A Pad	50-029-20841-01-00	A Pad - GPB Field	70.26520	-148.76039	Emissions
B Pad	50-029-21471-03-00	B Pad - GPB Field	70.26989	-148.67644	Components at a
C Pad	50-029-20129-03-00	C Pad - GPB Field	70.29554	-148.67093	Well Site
D Pad	50-029-23554-00-00	D Pad - GPB Field	70.29578	-148.76040	1
E Pad	50-029-20576-03-00	E Pad - GPB Field	70.33861	-148.67143	
F Pad	50-029-21974-01-00	F Pad - GPB Field	70.33773	-148.77005	-
G Pad	50-029-20553-04-00	G Pad - GPB Field	70.32197	-148.72315	
H Pad	50-029-21456-02-00	H Pad - GPB Field	70.29891	-148.84628	-
J Pad	50-029-21721-01-00	J Pad - GPB Field	70.32636	-148.84251	-
K Pad	50-029-21759-03-00	K Pad - GPB Field	70.33874	-148.61242	1
L Pad	50-029-23048-02-00	L Pad - GPB Field	70.35026	-149.32881	1
M Pad	50-029-20499-03-00	M Pad - GPB Field	70.33660	-148.96276	1
N Pad	50-029-23560-00-00	N Pad - GPB Field	70.33000	-149.91336	1
R Pad	50-029-20618-02-00	R Pad - GPB Field	70.32021	-148.90426	-
S Pad	50-029-22735-01-00	S Pad - GPB Field	70.35495	-149.03728	
U Pad	50-029-21117-60-00	U Pad - GPB Field	70.33493	-149.03728	+
	50-029-23568-00-00	V Pad - GPB Field	70.30037	-148.93122	
V Pad W Pad	50-029-21939-60-00	W Pad - GPB Field	70.32732	-149.26781	
	11 - 11 / W- / 1 W 3 W- DU- UU	w rau - trn rieid	1 /0.790.14	-147 (177/)	1

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If you have any questions concerning this submittal, please feel free to contact me at rachel.buckbee@bp.com or 907-564-4405.

Sincerely,

Rachel Buckbee

Air Compliance Advisor

Attachments: Certification Statement

Well Affected Facility Reports

Well Site Fugitive Emissions Monitoring Reports

cc: Compliance Technician, ADEC - Fairbanks

Annual Compliance Report 40 CFR 60 Subpart OOOOa

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Responsible Company Officia	10 / 29 / 2518 Date	
Neil Loader Printed Name	VP Operations Alaska Title	BP Exploration (Alaska) Inc.

		Hydraulic Frac	cturing/Refracturi	ng	Recordkeepin	g Form	
Section 1: Well Ident	ification						
Well Name:	1-441	S-113BL1	02442 (NAD02)				
Well Location: US Well Number:	Latitude: A	70.35604, Longitude: -149 50-029-23094-02-60		•			
	cat/Delineation Well ¹ (Yes or No):			•			
	1, Table 7, and Section 4 c	only.		•			
Date and Time Flowba			8/28/18 2:30				
Date and Time Flowba	ck Ended (Separator Dis	sconnected):	9/1/18 3:53				
Section 2: Flowback							
Γ	Table 1- Floy	vback to Separator ²		1	Ta	ble 2- Flowback Gas Ve	ented to Atmosphere
Begin Date/Time	End Date/Time	Gas Reco	very Method ³ om dropdown)		Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴
8/28/18 2:30	9/1/18 0:05	Routed to Flowlin	ne/Collection System				
<u> </u>		L			Ļ		
	•		tart and end times for recove	-			
	_	ny of the methods listed in	n the dropdown menu, use a	comi	bustion device (flare) an	d complete Tables 3 thr	ough 7.
⁴ If yes, complete Tables	s 3 through 7.						
			red gas to a flowline, reinje	ect ga	as into a well, reuse as	an onsite fuel source	e, or reuse for other useful purposes
Table 2 T		Dougla Cas to Flouding (Ca	Heatles & ster		Table 4	Tookalaalk, lafaaalkla	As Balaines Can Inter a Minit
		Route Gas to Flowline/Co	mecuon system		Table 4-	тесникану инеамне	to Reinject Gas into a Well
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) t	or Infeasibility		Reinjection Considered	Rea	son(s) for Infeasibility
Table	5- Technically Infeasible	e to Reuse Gas as Onsite	Fuel Source		Table 6- Techr	ically Infeasible to Reu	ise Gas for Other Useful Purpose
Reuse Technologies Considered		Reason(s) for Infeasibil	ity		Reuse Technologies Considered	Rea	son(s) for infeasibility
impact tundra, permafr	ost, or waterways. Fill o						where high heat emissions can negatively er the exemption, and list the exemption.
			Table 7- Gas to Combust	ion C	Device (Flare)		
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reas	on(s) that the Well Me	ets Claimed Exemption
				_			
					L		
Section 4: Summary o	and Comments						
	Duration of Flowback:	97.4	Hours		Comments:		
Duration of	Duration of Recovery: f Combustion (Flaring):	_	Hours Hours				

0.0 Hours

Duration of Venting:

Section	1: W	lell l	den	tific	atio	n

Well Name:	L-118L1			
Well Location:	Latitude: 70.35060, Longitude: -149.32498 (NAD83)			
US Well Number:	50-029-23043-00-60			
Wildcat/Delineation Well ¹ ()	res or No):	No		
¹ If yes, complete Section 1, Tab	le 7, and Section 4 only.			
Date and Time Flowback Firs	it Began:		6/29/18 2:30	
Date and Time Flowback Ended (Startup of Production):			7/4/18 14-23	

Section 2: Flowback

Table 1- Flowback to Separator ²			
End Date/Time	Gas Recovery Method ³ (choose from <u>dropd</u> own)		
6/30/18 11:30	Routed to Flowline/Collection System		
7/4/18 14:23	Routed to Flowline/Collection System		
	End Date/Time 6/30/18 11:30		

Та	Table 2- Flowback Gas Vented to Atmosphere				
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴			
		<u> </u>			

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

Section 3: Technical Infeasibility

Fill out <u>all five</u> of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

Table 3- Technically Infeasible to Route Gas to Flowline/Collection System				
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) for infeasibility		

Table 4- Technically Infeasible to Reinject Gas into a Well			
Reinjection Reason(s) for Infeasibility			

Table 5- Technically Infeasible to Reuse Gas as Onsite Fuel Source			
Reuse Technologies Considered	Reason(s) for Infeasibility		

Table 6- Technically Infeasible to Reuse Gas for Other Useful Purpose			
Reuse Technologies Considered	Reason(s) for Infeasibility		

If it is technically infeasible to recover gas in any of the methods listed above, gas must be flared unless flaring can result in a fire hazard or explosion, or where high heat emissions can negatively impact tundra, permafrost, or waterways. Fill out the flaring table below. If it is technically infeasible to flare, enter the times and dates of operating under the exemption, and list the exemption.

Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)				
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption
		<u> </u>		

Section 4: Summary and Comments

Duration of Flow	back: 131.9 Hours	Comments:
Duration of Reco	wery: 127.9 Hours	
Duration of Combustion (Fla	ring): 0.0 Hours	Flowback w
Duration of Ver	nting: 0.0 Hours	

Comments:			
Flowback was ha	alted for several hours becau	use the gathering ce	nter was down.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

Section 1: Well Identification	
Well Name:	S-129
Well Location: Latitude: 7	0.35360, Longitude: -149.03093 (NAD83)
US Well Number:	50-029-23433-00-00
Wildcat/Delineation Well ¹ (Yes or No):	No
¹ If yes, complete Section 1, Table 7, and Section 4 o	nly.
Date and Time Flowback First Began:	9/1/18 19:00
Date and Time Flowback Ended (Separator Dis	connected): 9/6/18 3:58

Section 2: Flowback

Table 1- Flowback to Separator ²		
Begin Date/Time End Date/Time Gas Recovery Method ³ (choose from dropdown)		
9/1/18 19:00	9/2/18 4:24	Routed to Flowline/Collection System
9/2/18 4:39	9/4/18 6:05	Routed to Flowline/Collection System
9/4/18 7:09	9/5/18 0:02	Routed to Flowline/Collection System
9/5/185:00	9/5/18 23:20	Routed to Flowline/Collection System

Table 2- Flowback Gas Vented to Atmosphere		
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴
		<u> </u>
		l

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

Section 3: Technical Infeasibility

Fill out <u>all five</u> of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

Table 3- Technically Infeasible to Route Gas to Flowline/Collection System		
Nearest Gathering Location of Nearest Line Location of Nearest Reason(s) for Infe		
	Location of Nearest	

Table 4- Tech	nically infeasible to Reinject Gas into a Well	
Reinjection Considered	Reason(s) for infeasibility	

Table 5- Technically Infeasible to Reuse Gas as Onsite Fuel Source		
Reuse Technologies Considered	Reason(s) for Infeasibility	

Table 6- Technically In	feasible to Reuse Gas for Other Useful Purpose	
Reuse Technologies Considered	Reason(s) for Infeasibility	

If it is technically infeasible to recover gas in any of the methods listed above, gas must be flared unless flaring can result in a fire hazard or explosion, or where high heat emissions can negatively impact tundra, permafrost, or waterways. Fill out the flaring table below. If it is technically infeasible to flare, enter the times and dates of operating under the exemption, and list the exemption.

Note: Flare must be equipped with a continuous pilot flame at all times.

			Table 7- Gas to Combustion	Device (Flare)
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption

Section 4: Summary and Comments

Duration of Flowback:	105.0 Hours	
Duration of Recovery:	94.0 Hours	
Duration of Combustion (Flaring):	0.0 Hours	1 1
Duration of Venting:	0.0 Hours	

Comments:	
	The well was shut-in several times during flowback.
	the well was shat-in several diffes dufing flowback.

³If it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

Section 1: Well Ident	tification			_	•		
Well Name: Well Location:	Latitude:	P1-20 70.39043, Longitude: -148	58628 (NAD83)	-			
US Well Number:		50-029-22288-00-00		•			
Wildcat/Delineation W	/ell¹ (Yes or No):		No	•			
	1, Table 7, and Section 4 o	nly.		•			
Date and Time Flowba	-		5/7/18 16:25				
Date and Time Flowba	ck Ended (Separator Dis	sconnected):	5/11/18 23:18	•			
Section 2: Flowback							
	Table 1- Flov	vback to Separator ²		ı	Ta	ble 2- Flowback Gas Vo	ented to Atmosphere
Begin Date/Time	End Date/Time		very Method ³ om dropdown)		Begin Date/Time	End Date/Time	Use of Separator Technically Feasible? ⁴
5/7/18 16:25	5/11/18 13:13	Routed to Flowlin	ne/Collection System				
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² Wildcat/delineation a	nd low pressure wells are	e not required to report st	tart and end times for recove	ry to	flowlines.		
³ If it is technically infea	sible to recover gas in a	ny of the methods listed in	n the dropdown menu, use a	com	bustion device (flare) an	d complete Tables 3 thr	rough 7.
⁴ If yes, complete Table	s 3 through 7.						
			red gas to a flowline, reinje	ect g	as into a well, reuse as	an onsite fuel source	e, or reuse for other useful purposes
Table 3- To	echnically Infeasible to	Route Gas to Flowline/Co	ollection System	1	Table 4-	Technically Infeasible	to Reinject Gas into a Well
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) (for Infeasibility		Reinjection Considered	Rei	ason(s) for Infeasibility
				1			
				1			
				l			
				ı			
Table	5- Technically Infeasible	e to Reuse Gas as Onsite	Fuel Source		Table 6- Techi	nically infeasible to Re	use Gas for Other Useful Purpose
Reuse Technologies Considered		Reason(s) for Infeasibil	lity		Reuse Technologies Considered	Rea	ason(s) for Infeasibility
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				l			
impact tundra, permaf	rost, or waterways. Fill o	-	v. If it is technically infeasible	to f	lare, enter the times and		where high heat emissions can negatively der the exemption, and list the exemption.
			Table 7- Gas to Combust	ion (Device (Flare)		
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reas	on(s) that the Well Me	eets Claimed Exemption
Section 4: Summary	and Comments						

Comments:

102.9 Hours

92.8 Hours

0.0 Hours 0.0 Hours

Duration of Flowback:

Duration of Recovery: Duration of Combustion (Flaring): Duration of Venting:

Castian 4. 18/all Island	*Continu	Hydraulic Fra	cturing/Refractur	ing	Recordkeepin	g Form	
Section 1: Well Ident Well Name:	nication	L-205					
Well Location:	Latitude:	70.34980, Longitude: -149		-			
US Well Number:		50-029-23388-01-00		-			
Wildcat/Delineation W	/ell ⁻ (Yes or No): 1, Table 7, and Section 4 <u>c</u>		No	-			
Date and Time Flowba		only.	5/7/18 15:00				
	ck Ended (Startup of Pro	oduction):	5/11/18 21:14	-			
Section 2: Flowback							
	Table 1- Flow	vback to Separator ²		1	Та	ble 2- Flowback Gas V	ented to Atmosphere
Begin Date/Time	End Date/Time	Gas Reco	very Method ³ om dropdown)		Begin Date/Time	End Date/Time	Use of Separator Technically Feasible?4
5/7/18 15:00	5/11/18 21:14		ne/Collection System]			
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² Wildcat/delineation an	d low pressure wells are	e not required to report s	tart and end times for recove	l In to	flowlines		
_	sible to recover gas in ar		n the dropdown menu, use a	•		d complete Tables 3 th	rough 7.
, ,							
	•		red gas to a flowline, reinjo	ect g	as into a well, reuse as	an onsite fuel source	e, or reuse for other useful purposes
Table 2. Ta	chalmih, infoscible to i	Route Gas to Flowline/Co		1	Toble 4	Toebuleelle Infonsible	An Polnings Con late a Mall
		Route Gas to Flowline/Co	mection System	ł		Technically Imeasible	to Reinject Gas into a Well
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) f	for Infeasibility		Reinjection Considered	Re	ason(s) for Infeasibility
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		<u>L</u>			<u> </u>		
Table	5. Tachnically infracible	to Reuse Gas as Onsite	Fuel Source	1	Table 6. Tech	alesthu Infoseible to Pa	use Gas for Other Useful Purpose
Tebic.	F reconnectly unesstate	to neuse das as Otisite	ruei source	1	Table or Texts	itally inteasible to he	use das for Obier Oseiui Purpose
Reuse Technologies Considered		Reason(s) for Infeasibil	lity		Reuse Technologies Considered	Res	ason(s) for Infeasibility
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-				ı			
impact tundra, permafro	ost, or waterways. Fill o	•	. •		-	•	where high heat emissions can negatively der the exemption, and list the exemption.
			Table 7- Gas to Combust	ion l	Device (Flare)		
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reas	on(s) that the Well Me	eets Claimed Exemption
Section 4: Summary o	and Comments				<u> </u>		
	Duration of Flowback:	102.2	Hours	1	Comments:		
	Duration of Recovery:	102.2	Hours				
Duration of	Combustion (Flaring):		Hours				
	Duration of Venting:	0.0	Hours				

Section 1: Well Ident	ıjıcatıon						
Well Name:		S-200A					
Well Location: US Well Number:	Latitude: 7	70.35510, Longitude: -149 50-029-22846-01-00					
Wildcat/Delineation W	fell ¹ (Ves or No):	50-029-22846-01-00	No .				
	1, Table 7, and Section 4 o	only.		•			
Date and Time Flowba			4/15/18 1:12				
Date and Time Flowba	ck Ended (Separator Dis	sconnected):	4/18/18 19:59				
Section 2: Flowback							
	Table 1- Flov	vback to Separator ²			Ta	ble 2- Flowback Gas Ve	ented to Atmosphere
Begin Date/Time	End Date/Time	l.	very Method ³ Pm dropdown)		Begin Date/Time	End Date/Time	Use of Separator Technically Feasible?
4/15/18 1:12	4/18/18 19:59		ne/Collection System				
						-	
					-		
2\4rildest/delineation ar	d low processing wells are	a set required to report st	tart and end times for recove	l Trito	Slovelings		
⁴ If yes, complete Tables Section 3: Technical If Fill out <u>all five</u> of the	s 3 through 7. Infeasibility	easible to route recove	n the dropdown menu, use a				ough 7.
Table 2- To	schalcally Infeasible to	Route Gas to Flowline/Co	Martine Custom	l I	Table 4	Tachnimik Infoscible	to Reinject Gas into a Well
		Route Gas to Flowine/Co	ollection System			rechnically inteasible	to Reinject Gas into a Well
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) 1	for Infeasibility		Reinjection Reason(s) for Infeasibility		eson(s) for Infeasibility
Table	5- Technically Infeasible	e to Reuse Gas as Onsite	Fuel Source		Table 6- Tech	nically Infeasible to Reu	ise Gas for Other Useful Purpose
Table Reuse Technologies Considered	5- Technically infeasible	e to Reuse Gas as Onsite Reason(s) for Infeasibil	,		Table 6- Tech Reuse Technologies Considered		ise Gas for Other Useful Purpose ison(s) for Infeasibility
Reuse Technologies	5- Technically infeasible		,		Reuse Technologies		
Reuse Technologies	5- Technically infeasible		,		Reuse Technologies		
Reuse Technologies	5- Technically infeasible		,		Reuse Technologies		
Reuse Technologies Considered If it is technically infeasimpact tundra, permafi	ible to recover gas in an	Reason(s) for Infeasibility	bove, gas must be flared unles	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea	
Reuse Technologies Considered If it is technically infeasimpact tundra, permafi	ible to recover gas in an	Reason(s) for Infeasibility y of the methods listed all but the flaring table below us pilot flame at all times.	bove, gas must be flared unlex.	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea	uson(s) for infeasibility
Reuse Technologies Considered If it is technically infeasimpact tundra, permafi	ible to recover gas in an	Reason(s) for Infeasibility y of the methods listed at the flaring table below	bove, gas must be flared unles	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	uson(s) for infeasibility
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note; Flare must be ed	ible to recover gas in an ost, or waterways. Fill o uipped with a continuo	Reason(s) for Infeasibility y of the methods listed at the flaring table below us pilot flame at all times. Claiming Exemption from Combustion	bove, gas must be flared unlex. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note; Flare must be ed	ible to recover gas in an ost, or waterways. Fill o uipped with a continuo	Reason(s) for Infeasibility y of the methods listed at the flaring table below us pilot flame at all times. Claiming Exemption from Combustion	bove, gas must be flared unlex. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note; Flare must be ed	ible to recover gas in an ost, or waterways. Fill o uipped with a continuo	Reason(s) for Infeasibility y of the methods listed at the flaring table below us pilot flame at all times. Claiming Exemption from Combustion	bove, gas must be flared unlex. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note: Flare must be ec	ible to recover gas in an ost, or waterways. Fill ouipped with a continuouipped with a c	y of the methods listed at out the flaring table below us pilot flame at all times. Claiming Exemption from Combustion (Flaring)? (Yes/No)	bove, gas must be flared unles v. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed (Choose from dropdown	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note: Flare must be ed Begin Date/Time	ible to recover gas in an ost, or waterways. Fill ouipped with a continuouipped with a c	y of the methods listed at but the flaring table below us pilot flame at all times. Claiming Exemption from Combustion (Flaring)? (Yes/No)	bove, gas must be flared unler v. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed (Choose from dropdown	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.
Reuse Technologies Considered If it is technically infeas impact tundra, permafi Note: Flare must be ed Begin Date/Time Section 4: Summary	ible to recover gas in an ost, or waterways. Fill ouipped with a continuouipped with a c	Reason(s) for Infeasibility y of the methods listed at out the flaring table below us pilot flame at all times. Claiming Exemption from Combustion (Flaring)? (Yes/No) 90.8	bove, gas must be flared unles v. If it is technically infeasible Table 7- Gas to Combust Exemption Claimed (Choose from dropdown	to fl	Reuse Technologies Considered ring can result in a fire hare, enter the times and evice (Flare) Reas	Rea azard or explosion, or v dates of operating und	eson(s) for Infeasibility where high heat emissions can negatively her the exemption, and list the exemption.

Section 1: Well Identification Well Name: Latitude: 70.39065, Longitude: -148.58357 (NAD83) Well Location: 50-029-22690-00-00 US Well Number: Wildcat/Delineation Well¹ (Yes or No): No ¹If yes, complete Section 1, Table 7, and Section 4 only. Date and Time Flowback First Began: 1/15/18 15:58 Date and Time Flowback Ended (Separator Disconnected): 1/17/18 15:30 Section 2: Flowback

	Table 1- Flowba	Ta	ble 2- Flowback	
Begin Date/Time	End Date/Time	Gas Recovery Method ³ (choose from dropdown)	Begin Date/Time	End Date/T
1/15/18 15:58	1/17/18 9:35	Routed to Flowline/Collection System		
			 	
			ł 	
			1	
			l L	

Table 2- Flowback Gas Vented to Atmosphere						
Begin Date/Time	End Date/Time	Use of Separator Technically Feasible?				
						
		 				
		.l				

²Wildcat/delineation and low pressure wells are not required to report start and end times for recovery to flowlines.

Section 3: Technical Infeasibility

Fill out all five of the tables below if it is infeasible to route recovered gas to a flowline, reinject gas into a well, reuse as an onsite fuel source, or reuse for other useful purposes that a purchased fuel or raw material would serve.

Table 3- Technically Infeasible to Route Gas to Flowline/Collection System					
Nearest Gathering Line	Location of Nearest Gathering Line	Reason(s) for infeasibility			
·					
					

Table 4- Technically Infeasible to Reinject Gas into a Well					
Reinjection Considered	Reason(s) for Infeasibility				

Table 5- Technically Infeasible to Reuse Gas as Onsite Fuel Source					
Reuse Technologies Considered	Reason(s) for Infeasibility				

Table 6- Technically Infeasible to Reuse Gas for Other Useful Purpose					
Reuse Technologies Considered	Reason(s) for Infeasibility				

If it is technically infeasible to recover gas in any of the methods listed above, gas must be flared unless flaring can result in a fire hazard or explosion, or where high heat emissions can negatively impact tundra, permafrost, or waterways. Fill out the flaring table below. If it is technically infeasible to flare, enter the times and dates of operating under the exemption, and list the exemption. Note: Flare must be equipped with a continuous pilot flame at all times.

Table 7- Gas to Combustion Device (Flare)							
Begin Date/Time	End Date/Time	Claiming Exemption from Combustion (Flaring)? (Yes/No)	Exemption Claimed (Choose from dropdown)	Reason(s) that the Well Meets Claimed Exemption			
			<u> </u>				
			<u> </u>				

Section 4: Summary and Comments

Duration of Flowback:	47.5 Hours	Comme ro:
Duration of Recovery:	41.6 Hours	
Duration of Combustion (Flaring):	0.0 Hours	ł I
Duration of Venting:	0.0 Hours	

Comme ro:	 	 	

^alf it is technically infeasible to recover gas in any of the methods listed in the dropdown menu, use a combustion device (flare) and complete Tables 3 through 7.

⁴If yes, complete Tables 3 through 7.

 Location:
 Drill Site 2
 Latitude (NAD83):
 70.27115
 Longitude (NAD83):
 -148.48667

	Table 1. Monitoring Survey Details ¹												
		Su	rvey			Tech	nician	Monitoring instrument					
Date	Date Begin Time End Time Ambient Temp Sky Conditions Speed (mph)					Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
9/12/2017	10:06:00 AM	11:30:00 AM	41	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	One item on delay of repair was not		
1/2/2018	7:28:00 AM	8:37:00 AM	61	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	repaired during the next planned		
4/21/2018	21/2018 7:23:00 AM 2:47:00 PM -14 Clear 5				5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	well shutdown.	Outside piping and well houses	
4/22/2018	2/2018 7:16:00 AM 1:42:00 PM 69 Clear 0				0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	Well shataown.	Manifold building	

In accordance with 40 CFR 60.5397a[g][1], fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor			-	-	•	•	-	-
	Connector			-	-	-	-		-
	Covers and Closed Vent Systems		•	•	•	•	-	•	
l I	Flange			•	-	-	-	•	-
1	Instrument				-	•	-	•	-
	Meter					•	•	•	•
before 8/2/2017	Open-Ended Line		-	-	-	-	•	<u> </u>	•
Deloie 0/2/201/	Other		-		-		•	-	•
	Pressure Relief Device				-	•	-	-	•
	Thief Hatch or Other Vessel Opening			•	-	-	•	•	-
	Valve		8/19/2017 4/21/2018 4/23/2018 6/20/2018	Handheld OGI	4	-	Requires a well shutdown or well shut- in	1	-
	Compressor	-	-	-	-		-	•	-
	Connector	-		•	•		-	•	-
	Covers and Closed Vent Systems	-	•		•	-	-	•	-
1	Flange	-		-		•	-	•	-
	Instrument	-	-		-	-	-	-	-
9/12/2017	Meter	-	-	-			•		-
	Open-Ended Line	-		-		-	•	-	•
1 1	Other	-	_		-		•	•	·
1	Pressure Relief Device	-	-	-		-	-	-	-
] [Thief Hatch or Other Vessel Opening		-		-		-	<u>-</u>	-
	Valve		•	•	-	-	-	•	-
	Compressor		-			-	•		-
] [Connector	-	-	•	-	-		•	-
1 1	Covers and Closed Vent Systems	-	•	•	-		<u>-</u>	-	
1 1	Flange	-	-	-	•		-	-	<u>-</u>
1	Instrument	-	-	-	•		-	-	-
1/2/2018	Meter	-	•	•	•	•	-		-
1	Open-Ended Line		•	-	•	•	-	•	<u>-</u>
	Other	-		-	•		-	<u>-</u>	-
	Pressure Relief Device	-	-	-	-	-	•	-	
	Thief Hatch or Other Vessel Opening	-	-	-	-		•	-	-
	Valve	-	-	-	-	-			-

				Table 2.	Monitoring Survey	Results		· · · · · · · · · · · · · · · · · · ·	
		1				On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•		-	-	•	•	•
	Connector	•	•	-	-	-	-	-	-
	Covers and Closed Vent Systems	-		-	-	-	-	-	-
	Flange		-	-	-	-	-	-	
	Instrument		•			-	•	-	•
4/21/2018	Meter				•		-		-
	Open-Ended Line	-	-	-	-	-	-	<u> </u>	
	Other	-		-	-		-	•	•
	Pressure Relief Device	-	-	-	-	•	-	•	•
	Thief Hatch or Other Vessel Opening	-	-	-	-	•		-	-
	Valve	1	4/21/2018		-		-	-	•
	Compressor	-	•			-	-	-	
	Connector	-	•		-	-	•		•
	Covers and Closed Vent Systems		-			-	<u> </u>	•	
	Flange	-	-		-	•		-	-
	Instrument	-	-	-	-	•	-	•	•
4/22/2018	Meter		-	-	-		-	•	•
	Open-Ended Line	-	-	-	-		-	•	•
	Other	-	-		-	•	-	-	•
	Pressure Relief Device	-	•				-	-	-
	Thief Hatch or Other Vessel Opening	-		-			-	•	· ·
	Valve				-	-	-	-	-

 Location:
 Drill Site 3
 Latitude (NAD83):
 70.22883
 Longitude (NAD83):
 -148.28499

				-			Monitoring Survey I					
		Su	rvey			Tech	ınlclan	M	ionitoring instrume	ent		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/9/2017	7:43:00 AM	12:07:00 PM	52	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of six items occurred more	Outside piping
9/16/2017	1:09:00 PM	3:45:00 PM	35	Fog	7	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	than 30 days after the date of leak	1
11/8/2017	8:07:00 AM	2:02:00 PM	32	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Outside piping and wells
11/9/2017	10:22:00 AM	12:27:00 PM	23.9	Overcast	1.1	8. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	after the repair, repair dates of three	Module 4912 and 4913 enhanced oil recovery
1/2/2018	7:35:00 AM	3:10:00 PM	65.4	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Module4901
3/13/2018	7:57:00 AM	9:35:00 AM	71	Partly Cloudy	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	date of additional repair for one item	
6/18/2018	10:30:00 AM	11:30:00 AM	64	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	was not recorded.	Start up support

In accordance with 40 CFR 60.5397a[g](1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
							of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-	-	-	
	Connector		Unknown 8/4/2017 4/10/2018	Handheld OGI	3	-	Requires a well shutdown or well shut- in.		
	Covers and Closed Vent Systems		-		-	-	-	-	-
1	Flange			•	-	•	-		
1	Instrument			-	-	-	-		-
	Meter		Unknown	Handheld OGI	1	-	Requires a well shutdown or well shut- in.	-	-
before 8/2/2017	Open-Ended Line				-		•		<u>-</u>
Derore 8/2/2017	Other			-	-		-	-	
	Pressure Relief Device			-	-	-	-	-	
1	Thief Hatch or Other Vessel Opening				•	•	-	-	-
	Valve		Unknown 4/12/2018 4/27/2018 4/29/2018 6/28/2018 7/13/2018 7/27/2018	Handheld OGI Bubble Check	15		Requires a well shutdown or well shut- in or would be unsafe to repair during the operation of the unit	-	•
	Compressor	-	-		-	<u>-</u>	-	-	-
	Connector	1	4/27/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	•
1	Covers and Closed Vent Systems	-			•	-	-	-	
	Flange	-			-	•	-		-
1	Instrument	-	,	•		•	-	-	-
8/9/2017	Meter	-					•	<u> </u>	
1	Open-Ended Line	-			-		-		-
]	Other	•	-		-	<u> </u>	-		-
	Pressure Relief Device	-	-	•		•	-		-
	Thief Hatch or Other Vessel Opening	-			•	-	-	-	-
	Valve	2	9/1/2017 9/5/2017	Handheld OGI	1	•	Would be unsafe to repair during the operation of the unit	-	-

				Table 2.	Monitoring Survey	Results			
							of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-				•		-
l [Connector	-	-		•	-	-	-	-
	Covers and Closed Vent Systems		-	-	-		-	-	-
I	Flange	•	•	-		·	-	•	-
1	Instrument	-	-	-		•	-		-
9/16/2017	Meter		-	-	-		·	•	•
	Open <u>-End</u> ed Line			-	-	-	•	-	-
L	Other		-	-			-	•	
L	Pressure Relief Device		•	-	•		•	•	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve		-	-		•	-	-	-
	Compressor		-	-	-		-	•	-
	Connector	-		-	-	-	-		-
	Covers and Closed Vent Systems			-		-	-		-
	Flange		•	-		-	•	•	•
	Instrument		•	-		-	•	•	•
11/8/2017	Meter		•	-		-	•	•	
11/8/201/	Open-Ended Line	-		-	-	-	-	•	-
1	Other		•	-		-	-		-
	Pressure Relief Device		-	-		•	-	<u>-</u>	-
	Thief Hatch or Other Vessel Opening		-	-				<u>-</u>	-
	Valve	4	4/12/2018	Handheld OGI	4	3	Requires a well shutdown or well shut- in	-	
	Compressor	-	-	-	•	•	-	-	-
	Connector	1	12/9/2017	Handheld OGI	•	•	-	-	-
i L	Covers and Closed Vent Systems	-	-	-			•	-	-
	Flange		-	-	-		-	-	-
	Instrument		-				•	•	•
11/9/2017	Meter					-	-	•	-
11/3/201/	Open-Ended Line				•	-	-	-	•
l L	Other	-	-	-	-	-	-	-	•
	Pressure Relief Device	-	-	-	-	-	-	-	-
l L	Thief Hatch or Other Vessel Opening	-	-	-	•	•	-	-	-
	Valve	2	7/5/2018	Bubble Check	2	1	Requires a well shutdown or well shut- in	-	-
	Compressor		•	-	•		-	<u> </u>	-
	Connector	4	1/2/2018 2/6/2018 4/10/2018	Handheld OGI	-	-	-	3	-
	Covers and Closed Vent Systems	-	-	-	-				-
	Flange		-		-			-	-
	Instrument	-	-	-	-	•	-	-	-
1 1/2/2010	Meter			-	-	-	-		-
1/2/2018	Open-Ended Line		•	-	-	-	-	-	-
ı l	Other	-				-		-	-
	Pressure Relief Device	-	-	-	-	•	-	-	-
	Thief Hatch or Other Vessel Opening	-		-		•		-	
	Valve	6	1/2/2018 2/2/2018 4/10/2018 4/12/2018	Handheld OGI	2	1	Requires a well shutdown or well shut- in	3	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected			During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-			-	•	-	-
	Connector			-	-	•	-	<u>-</u>	-
	Covers and Closed Vent Systems	-	-	-	•		-	-	-
	Flange	-			-		-	-	-
ì	Instrument	-	·				-	-	-
	Meter	-	-	-		-	-	-	•
3/13/2018	Open-Ended Line	-		-		•	-		
	Other	-	•	-		•	-	•	-
	Pressure Relief Device	-	-	-		-	-		-
l	Thief Hatch or Other Vessel Opening	-		-		-	•	<u>-</u>	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut- in	•	-

 Location:
 Drill Site 4
 Latitude (NAD83):
 70.27359
 Longitude (NAD83):
 -148.27941

					-	Table 1.	Monitoring Survey (Details ¹				
		Sui	vey			Tech	ınician	N	lonitoring instrume	nt		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	_	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/11/2017	7:43:00 AM	10:20:00 AM	51	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284		Outside piping
8/11/2017	7:43:00 AM	10:20:00 AM	51	Overcast	9	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair of five items occurred	Outside piping
9/15/2017	10:33:00 AM	12:10:00 PM	47	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	more than 30 days after the date of	
11/28/2017	8:47:00 AM	9:55:00 AM	2	Overcast	9	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	leak discovery and the resurvey of	
3/15/2018	12:00:00 AM	12:30:00 PM	65	Partly Cloudy	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	one item occurred more than 30 days	
3/16/2018	8:00:00 AM	10:00:00 AM	-6	Clear	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	after the repair.	Inside well houses only
3/28/2018	9:49:00 AM	10:47:00 AM	-13	Clear	6	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-321	74900237		Outside piping

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		1	of Repair						
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-	-	-	-
	Connector		3/15/2018	Handheld OGI	1	-	Repair or replacement is technically infeasible	-	-
	Covers and Closed Vent Systems		-	-		-	-	-	-
1	Flange		-	•	•	•	-	-	-
	Instrument		•	•	-	-	·	-	-
before 8/2/2017	Meter		-	-	-	-	-	-	-
	Open-Ended Line		-	-	-	-		-	-
j	Other		-		•	•	-	-	-
	Pressure Relief Device		-		-			-	-
	Thief Hatch or Other Vessel Opening		•	-	-		•	-	-
	Valve		3/15/2018	Handheld OGI	3	2	Requires a well shutdown or well shut- in	-	-
	Compressor	-	•		-		•	-	
	Connector	-	-	-	•		-	-	-
	Covers and Closed Vent Systems	-	-	-		•	•	-	-
	Flange	-	-	-	-	-		-	-
	Instrument	-	-	-	•	•	-	-	-
0/11/2017	Meter	-	-	-	•	•			-
8/11/2017	Open-Ended Line	-	-	-		•		-	-
	Other	-	-		•		•	-	
	Pressure Relief Device	-	•		•	•			-
	Thief Hatch or Other Vessel Opening	-	-		•	•	-	-	-
	Valve	3	8/11/2017	•	2	2	Would be unsafe to repair during the operation of the unit	-	-
	Compressor	-		•		-	•		-
	Connector	-		-	•	-	-	•	-
	Covers and Closed Vent Systems		-	-		-	-	•	*
	Flange	-		-		-	-	-	•
	Instrument			•		-	-	•	
9/15/2017	Meter	-		•	•	•			-
	Open-Ended Line		-		•	•		<u> </u>	-
	Other		-	-	-	-		•	•
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	-
	Valve	-		•			-	•	

				Table 2.	Monitoring Survey	Results			
					1	On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	•			•	-	-
	Connector	-	-	-	•	-	•	-	-
	Covers and Closed Vent Systems	•				•		-	
	Flange	-	-	-	-	-	•	-	•
	Instrument	-	-			•	<u>-</u>	-	-
11/28/2017	Meter	-	-	-	-		<u> </u>	-	-
	Open-Ended Line	-	-	-	<u> </u>		•	-	<u> </u>
	Other	<u> </u>		·	-	•	•	-	-
	Pressure Relief Device		-	-	-	-	•	<u>-</u>	-
	Thief Hatch or Other Vessel Opening	<u> </u>		-	· -	-	•	-	-
	Valve	-				-	•		-
	Compressor	·		-		-	•	-	-
	Connector	7	3/28/2018 3/31/2018 4/7/2018 4/16/2018	Handheld OGI	-	-	-	1	-
	Covers and Closed Vent Systems	•	-	-	•	-	-	•	•
	Flange	-	•	-	-	-	<u>-</u>	•	-
3/15/2018	Instrument	2	3/29/2018 4/1/2018	Handheld OGI	-	•	-	-	-
3/13/2010	Meter	2	4/16/2018	Handheld OGI	-	-	•	2	-
	Open-Ended Line	•	•	-	-		•	•	•
	Other		•	-	-	-	<u> </u>	•	-
	Pressure Relief Device	-		-	•	-		-	•
	Thief Hatch or Other Vessel Opening Valve	4	3/29/2018 3/31/2018 4/4/2018 4/29/2018	- Handheld OGI	-	•	-	1	-
	Compressor	-	-				•	-	-
	Connector		-	-	•	•	•	-	-
	Covers and Closed Vent Systems	-	•	-	-	-	-	-	
	Flange		-	-	-	-	-	-	-
	Instrument	1	4/16/2018	Handheld OGI	-	•	•	1	-
3/16/2018	Meter	<u>-</u> -	-	-	-	-	<u> </u>		-
	Open-Ended Line	<u> </u>		· .	•		•	-	-
	Other	<u> </u>	•	-			-	-	-
	Pressure Relief Device		•	-	•	<u> </u>	-	•	-
	Thief Hatch or Other Vessel Opening	 		•	•	-	-	-	-
	Valve	<u> </u>	•	-	-	-	•	<u> </u>	
	Compressor	· · ·	•	•			•	-	
	Connector		•	•	-		-	-	-
	Covers and Closed Vent Systems		•	-		-	-		<u> </u>
	Flange	<u> </u>	·	<u> </u>	· -	-	-	-	·
2/20/2222	Instrument	-	•	-		-		·	-
3/28/2018	Meter	<u> </u>	-	-		•		•	
	Open-Ended Line	-	•	-					<u> </u>
	Other	<u> </u>	-	-	-	-	•	-	<u> </u>
	Pressure Relief Device	-	-	-	-	•			<u> </u>
	Thief Hatch or Other Vessel Opening	-	-		-	-	•	-	-
	Valve	<u> </u>	-	-	-	•		-	-

Location: <u>Drill Site 6</u> Latitude (NAD83): 70._ 24341 Longitude (NAD83): -148. 50169

							Monitoring Survey I					
		Sui	rvey			Tecl	nnician	N	ionitoring instrume	nt		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/14/2017	1:15:00 PM	2:30:00 PM	35	Clear	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The repair of three items occurred more than 30 days after the date of	
11/21/2017	10:39:00 AM	10:41:00 AM	56	Overcast	0	J. Kazense	IR Lvi 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	leak discovery, the resurvey of four items occurred more than 30 days	Inside manifold only
12/29/2017	7:45:00 AM	10:45:00 AM	18	Overcast	3	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and well houses
3/8/2018	11:15:00 AM	12:15:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	seven monitoring survey details for one monitoring survey were not	
6/24/2018	Unknown	Unknown	Unknown	Unknown	Unknown	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	·	Start up support

¹ in accordance with 40 CFR 60.5397a(g)[1], fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		7					of Repair	:	
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	•			-	<u>-</u>	-
1	Connector		-	•		•	•	-	-
1	Covers and Closed Vent Systems		•	•	•		-	·	-
1 1	Flange		-		-	-		-	-
	Instrument		-	-	2	2	Requires a well shutdown or well shut- in	-	
before 8/2/2017	Meter			•			·	<u>-</u>	
1	Open-Ended Line						-	-	
] [Other		_ ·	· •	-	-	-		-
] [Pressure Relief Device		-		-	•	-		-
1	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	-
	Valve		1/16/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	-
	Compressor	•	•				-		
[Connector		•		-	-	-	-	-
1 [Covers and Closed Vent Systems	-	-	•	•	•	•	-	-
	Flange	-	-	•	•	•	-		-
	Instrument	-	-	-	-	-	-	-	-
9/14/2017	Meter	-	-	•	-		•		-
	Open-Ended Line	<u> </u>	-	-	-		•	•	-
	Other		-		-	-	-	•	-
	Pressure Relief Device	-	-		-	-	-	·	-
1	Thief Hatch or Other Vessel Opening	-	-	-	-	-	•	•	•
	Valve	<u> </u>	-		•	-	•	-	-
	Compressor		-	•	-		-	•	-
	Connector	2	11/29/2017 1/16/2018	Handheld OGI	•		-	1	-
[Covers and Closed Vent Systems		•	•	•	-	-	•	-
[Flange	·	-				-	-	-
	Instrument		-		-	-	-	-	-
11/21/2017	Meter	1	-	-	1	1	Requires a well shutdown or well shut- in	•	-
l	Open-Ended Line	-	-	-		•	-	-	-
	Other	-	-	-	-	-	-	-	
 	Pressure Relief Device	-	-		•	•		-	•
1	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-		-
1	Valve	2	1/16/2018	Handheld OGI	-	-	-	2	-

				Table 2.	Monitoring Survey	Results			
		1		10002	I STATE OF THE PARTY OF THE PAR	On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-		-	•	-		-	•
i i	Connector	-	•	-	-	-	-	-	
[Covers and Closed Vent Systems		-	-	-	-	•	· ·	
1	Flange			-			-	-	
	Instrument						•		
12/29/2017	Meter					-	<u>-</u>	•	-
	Open-Ended Line			-		•	-	-	
l [Other					•		-	-
1	Pressure Relief Device	-		•	•		-	-	-
	Thief Hatch or Other Vessel Opening	•		-	-		-	•	-
	Valve	-	-	-			=	-	•
	Compressor	-	-				-		-
	Connector	-	-	-		•	-	•	-
	Covers and Closed Vent Systems	-	-	-	•		-	-	-
	Flange	•	-	-	-	-	-	•	<u>-</u>
l	Instrument			-	-	•	-	•	-
3/8/2018	Meter	-		-	-		-	=	-
l l	Open-Ended Line		-	-		-	•	,	-
] [Other				•		•	•	-
1 [Pressure Relief Device	-	•	•	•	-	•	-	-
l l	Thief Hatch or Other Vessel Opening			•	•	-	-	-	-
	Valve		-	-	-		•	•	-
	Compressor				-	•	-	,	-
1	Connector	-		-	-	-	•		-
	Covers and Closed Vent Systems			-	-		-	-	-
	Flange			-	-		-	-	-
	Instrument			-	•	-	•	•	-
6/24/2018	Meter					•	•	•	-
	Open-Ended Line	-	-	-	-	·	•		-
	Other	-	•	-			-	-	-
] [Pressure Relief Device		· · · · · · · · · · · · · · · · · · ·	-	-		-	-	-
	Thief Hatch or Other Vessel Opening	-			•		-	-	- ·
	Valve	1	7/7/2018	Bubble Check	-	•	-	•	-

Location: Dr ill Site Latitude (NAD83): 70.26849 Longitude (NAD83): -148.57401

	Table 1. Monitoring Survey Details ¹											
		Su	rvey			Tech	hnician	N	ionitoring Instrume	ent		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/14/2017	12:10:00 PM	12:50:00 PM	35	Clear	4	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	A monitoring survey daily verification	
11/11/2017	8:45:00 AM	3:50:00 PM	8	Overcast	10.4 to 18	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	video and well site photo were not	
3/9/2018	7:43:00 AM	8:37:00 AM	68	Overcast	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	recorded for one survey.	

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	•	-	•	•	·
]	Connector		-	-	•	-	-	-	·
1	Covers and Closed Vent Systems		-	-	-		-	-	-
į (Flange				-	-	•	-	-
[Instrument				-		•	-	•
before 8/2/2017	Meter		-	-			•	-	-
Deloie 0/2/201/	Open-Ended Line		-	•	-	-	-	<u>-</u>	-
	Other		-	-	-		-	-	
	Pressure Relief Device			-	-		-	-	
	Thief Hatch or Other Vessel Opening		•		-	-	-	-	•
]	Valve		11/9/2017	Handheld OGI	2	1	Requires a well shutdown or well shut- in	-	-
	Compressor	-	-	-	-		-	-	
1	Connector		-	-	-	•			-
1	Covers and Closed Vent Systems	•		-	-		•	-	-
	Flange	-			-				-
	Instrument	-		-	-	-			-
9/14/2017	Meter	-	-		-	-	-	-	-
	Open-Ended Line		-	-	-		-	-	•
1	Other		-	-	-	•	-	•	•
l [Pressure Relief Device			-	-		-	-	-
	Thief Hatch or Other Vessel Opening			-	-		-	<u> </u>	-
	Valve				•		-	-	•
	Compressor		•		•		-		•
l i	Connector		-	·	•	-	-	•	•
1	Covers and Closed Vent Systems			-	-	-	•	-	
[Flange	-	·		-		•	-	-
] [Instrument	-				-	•	-	-
11/11/2017	Meter				-		•	-	
1	Open-Ended Line				-	-		·	-
1	Other					-	•		
i [Pressure Relief Device						-	-	
i i	Thief Hatch or Other Vessel Opening		-	-	-		-		-
L	Valve	1	11/19/2017	Handheld OGI	-	•	-	<u>-</u>	-

				Table 2.	Monitoring Survey	Results			-
		:				On Delay	of Repair		I.
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•			-	•	•	
	Connector	-				-	-	-	
	Covers and Closed Vent Systems	-				-	-		
	Flange		-	-	-	-	-		_
	Instrument	-		-			-		
3/9/2018	Meter					-	-		
	Open-Ended Line	-		-				-	
	Other	-	-	-			-	-	
	Pressure Relief Device	-	-	-			-		
	Thief Hatch or Other Vessel Opening		-	-					
	Valve	-	-			-		-	

Location:Dri	I Site 9	atitude (NAD83):	70.24255	Longitude (NAD83):	-148.24423
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						Table 1.	Monitoring Survey I	Details ¹				
		Sui	rvey			Tecl	hnician	N	lonitoring Instrume	nt		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/10/2017	7:30:00 AM	1:05:00 PM	43	Overcast	5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284		Outside piping around pad
9/16/2017	8:45:00 AM	2:01:00 PM	37	Overcast	8	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		High severity walkthrough and rechecks
10/31/2017	7:52:00 AM	8:02:00 AM	26	Overcast	6	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	The repair of ten items occurred	Scan of flange
12/31/2017	9:03:00 AM	10:42:00 AM	74	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	more than 30 days after the date of	
3/23/2018	1:55:00 PM	4:01:00 PM	71	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-321	74900236	leak discovery, the resurvey of one	Inside modules only
3/24/2018	8:35:00 AM	12:30:00 PM	63	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-322	74900236	item occurred more than 30 days	Inside modules only
3/25/2018	8:30:00 AM	3:42:00 PM	64	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-323	74900237	after the repair, and the date of	Inside modules only
4/13/2018	7:35:00 AM	2:45:00 PM	9	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	additional repair attempts was not	Well houses
4/14/2018	7:15:00 AM	2:00:00 PM	-12	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	recorded for one item.	Outdoor piping and rescans
4/27/2018	10:25:00 AM	4:45:00 PM	76	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242] .cco.ucu.or one item.	
6/18/2019	8:45:00 AM	10:20:00 AM	65	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	1	Start up support
6/26/2018	3:50:00 PM	4:58:00 PM	72	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
6/22/2018	2:31:00 PM	3:49:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900242		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-		-	•	-
	Connector		11/15/2017 2/20/2018 2/26/2018 4/14/2018 4/23/2018 5/2/2018 5/7/2018 6/22/2018 6/30/2018	Handheld OGI Bubble Check	15	-	Requires a well shutdown or well shut- in or would be unsafe to repair during the operation of the unit	·	
	Covers and Closed Vent Systems		-	•	·		· · · · · · · · · · · · · · · · · · ·	-	-
	Flange Instrument		2/20/2018 2/26/2018	Handheld OGI	4	-	Requires a well shutdown or well shut- in or would be unsafe to repair during the operation of the unit	·	
before 8/2/2017	Meter		11/25/2017 2/20/2016 2/26/2018 4/23/2018 6/15/2018	Handheld OGI	6	1	Requires a well shutdown or well shut- in		
	Open-Ended Line			-			-	-	•
	Other		-		-	•	-	-	•
	Pressure Relief Device			-	-		-	·	•
	Thief Hatch or Other Vessel Opening			-	-		•	•	
	Valve		2/18/2018 2/20/2018 3/20/2018 3/24/2018 3/24/2018 3/25/2018 4/13/2018 4/13/2018 4/14/2018 4/26/2018 4/26/2018 5/25/2018 6/17/2018 6/22/2018 7/24/2018	Handheld OGI Bubble Check	30	2	Requires a well shutdown or well shut- in	-	-
	Compressor	-	-	-	-	· · · · · · · · · · · · · · · · · · ·	-	•	-
	Connector		· · · · · ·		-	•	-	· · · · · · · · · · · · · · · · · · ·	
	Covers and Closed Vent Systems	-	-	•	•			·	
	Flange	<u> </u>	-		-	<u> </u>	-		<u> </u>
	Instrument	<u> </u>				<u> </u>		<u> </u>	-
8/10/2017	Meter	-				•	•	<u> </u>	-
	Open-Ended Line				-	•	·	<u></u>	•
1	Other			•	-	<u>.</u>	-		•
1	Pressure Relief Device	-	-		-	-		<u> </u>	•
	Thief Hatch or Other Vessel Opening			•	-	•	-		
	Valve	3	8/10/2017		1	1	Requires a well shutdown or well shut- in	<u> </u>	-

F		*		Table 2.	Monitoring Survey	Results		**	
					1	On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-		•	•	•			•
ì	Connector			-		-	-		•
•	Covers and Closed Vent Systems	-	-	-	-	•	-	-	-
1	Flange	-	•	-				•	•
}	Instrument	<u> </u>		<u> </u>		-		•	•
9/16/2017	Meter_	11	9/16/2017	-	-	-	•		<u> </u>
•	Open-Ended Line Other				 		•		
	Pressure Relief Device			-	-	-	-	•	•
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-		
	Valve			-			-	•	
	Compressor	-					-	-	
	Connector	-	-	-		-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	
	Flange	-	-	-	-	-		-	•
	Instrument	-	-	-		-	-		-
10/31/2017	Meter	-	-	•	-	-	-	<u> </u>	-
	Open-Ended Line	-		•		•	•	-	-
l	Other	ļ <u>-</u>	-	•	-	•	-	-	-
	Pressure Relief Device	-		-	<u> </u>			•	
	Thief Hatch or Other Vessel Opening Valve	-	·	-	-				-
	Compressor	-		-			-	•	-
	Connector	- :	-	- : -			-	•	
	Covers and Closed Vent Systems	-	-				•		
	Flange	-		-	-	-	•	-	-
	Instrument	-	-	-	-	-	-		•
12/31/2017	Meter	-	•	-		•	-	-	•
	Open-Ended Line	-	-	-	-	-	•	-	-
	Other	-	•	-	-	-	•	-	-
	Pressure Relief Device	•	-	-	<u> </u>		-	-	-
	Thief Hatch or Other Vessel Opening	•			<u> </u>		-	*	-
	Valve	<u> </u>	-	•	-	-	-	· - · · · · · · · · · · · · · · · · · ·	
	Compressor Connector	4	6/22/2018	Handheld OGI	-	•	-	4	
	Covers and Closed Vent Systems	-	-	- Handneid OGI	-	-	-	-	
	Flange		<u> </u>		-	-			-
	Instrument	1	4/23/2018 6/22/2018	Handheld OGI	-	-	-	1	-
3/23/2018	Meter	-		-		-	-	-	-
	Open-Ended Line			•		•	-	-	•
	Other		-	-		-	•	-	
	Pressure Relief Device	-	-	•	-	-	-		<u>-</u>
	Thief Hatch or Other Vessel Opening	-	•	•		•	-	-	-
	Valve	•				-	· · · · · · · · · · · · · · · · · · ·		-
	Compressor Connector	3	4/14/2018	Handheld OGI			-	<u> </u>	-
	Covers and Closed Vent Systems		4/23/2018	•		•	-		-
	Flange	 	-	-	-	•	-		-
	Instrument Meter	1	4/14/2018	Handheld OGI	<u> </u>	-	<u> </u>	-	•
3/24/2018	Open-Ended Line	1	4/8/2018	Handheld OGI	<u> </u>	- :	-	-	-
3/24/2018	Open-Ended Line Other	-	•		 	- :	<u> </u>	-	-
	Pressure Relief Device		<u> </u>	- :			<u> </u>		
	Thief Hatch or Other Vessel Opening	 	-	-	-	-	-	-	-
	Valve	5	3/31/2018 4/8/2018 5/25/2018	Handheld OGI	-	-	-	3	-
			6/14/2018		l				

Survey Component					Table 2.	Monitoring Survey	Results	· · · · · · · · · · · · · · · · · · ·		
Date Lumpowers Detected Delaigh Instrument type Instrument type Profile Supering Air August 2 Explanation Monthload Monthload								of Repair		
Convector		Component					As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
Connector 6	1	Compressor				-	-	•	-	-
Motion M			6	4/14/2018	Handheld OGI	-	-	-		-
Meter 3	i l		-	·	·	-		-	-	•
Meter 3 4/14/2018 Nanthed OCI	i l		-	·		-	-		<u> </u>	-
Open School Lime	3/25/2018									
Other	1 1				Handheld OGI					
Pressure Relief Durich	i l				<u> </u>					
Their flatch or Other Vessel Opening	1 -									
Valve	1 -									
Compressor	1 -									
Connector 3				<u> </u>	-					
Cover and Glosel Vertile Spetters	i F			4/10/2019	Handhold CC					
Flange	1 h									
Instrument	1 F									
Meter	i t									
A/13/2018 Open-Ended Line	i l									
Other	4/13/2018									
Thief Hatch or Other Yessel Opening	i		· ·	-						
Valve	i T	Pressure Relief Device	-	-	-	-	-	-	-	-
Valve	i	Thief Hatch or Other Vessel Opening	-	-		-		•	•	-
Compressor - - - - - - - - -	ĺ		4		Handheld OGI	-	-	-	1	-
Covers and Closed Vent Systems - - - - - - - - -		Compressor			-		-		-	-
Flange	1 1	Connector	-	•		-	•	-	•	-
Instrument	ł [Covers and Closed Vent Systems	-	-	-	-	-	•	-	-
Meter	i [Flange				•				-
A 14 2018 Open-Ended Line	[-	•	•	-		-
Open-Ended Line	4/14/2018									
Pressure Relief Device	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
Thief Hatch or Other Vessel Opening	1									
Valve 2 6/20/2018 Bubble Check 1 1 Requires a well shutdown or well shut in 1	1 }									
Compressor										
Connector				0,10,1010	DODDIC CITCUR	-				
Covers and Closed Vent Systems	1 L			-		-				
Flange	1		_							
A/27/2018	i l									
Meter	1 F									
April	i F								·	
Other	4/27/2018 -									
Pressure Relief Device	i F									
Thief Hatch or Other Vessel Opening	i t									
Valve 1 6/22/2018 Handheld OGI 1 Requires a well shutdown or well shut	i t									
Connector -					Handheld OGI					
Connector -		Compressor	-			-			•	-
Flange - <td>, t</td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>	, t		-	-	-				-	-
Instrument	i F	Covers and Closed Vent Systems			· -			-	<u> </u>	
	i l		-					-		-
	1 [•	-		-	-	-
	6/18/2019	Meter	-	•				-	-	-
Open-Ended Line	į [L		-
Other	i [
Pressure Relief Device	1 1							L		
Thief Hatch or Other Vessel Opening	1									
Valve		Valve		<u> </u>	<u> </u>			-	<u> </u>	<u> </u>

				Table 2.	Monitoring Survey	Results			
			Successful Repair	1		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-		· ·	-		
	Connector					-	-	-	•
	Covers and Closed Vent Systems	-	-	-	•	•	-	•	-
	Flange	-			-		-	-	•
	Instrument					-	-	-	•
6/22/2018	Meter		-	-		-	-	•	-
6/22/2018	Open-Ended Line						-		
	Other	-	-	-	-		-	-	-
	Pressure Relief Device					-	-	-	•
l	Thief Hatch or Other Vessel Opening	-	•			-	-		-
	Valve	3		-	3	3	Requires a well shutdown or well shut- in	•	•
	Compressor	-	-	-	-	-		-	-
	Connector		-	-	-	-	-		-
	Covers and Closed Vent Systems	-		-		-	-		-
	Flange			-	-	-			-
	Instrument	-	-	-	-	-	-	-	•
6/26/2018	Meter	•	-	-	-	-	-	-	-
0/20/2018	Open-Ended Line	-	-		-	-	-	•	-
	Other	-	-	-	-	- ·	-	-	-
	Pressure Relief Device	•				-	-	-	-
	Thief Hatch or Other Vessel Opening	-		•	-		-	-	-
	Valve	1	-	-	1	1	Requires a well shutdown or well shut- in	-	-

 Location:
 Drill Site 11
 Latitude (NAD83):
 70.27409
 Longitude (NAD83):
 -148.32713

5 4.							Monitoring Survey I					
		Su	rvey			Tech	nnician	N	tonitoring Instrume	nt		
Date	Begin Time	End Time	AmbientTemp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/11/2017	1:49:00 PM	3:43:00 PM	40	Overcast	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of three items occurred	Outside Piping
9/15/2017	1:30:00 PM	3:00:00 PM	47	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	more than 30 days after the date of	
11/22/2017	11:30:00 AM	2:30:00 PM	7	Partly Cloudy	2	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GF-320	44400882	leak discovery, and the resurvey of	
11/27/2017	8:47:00 AM	10:33:00 AM	-9	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	one item occurred more than 30 days	
3/13/2018	9:56:00 AM	11:57:00 AM	72	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	after the repair.	

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

r				Table 2	Monitoring Survey	Poculte			
	·	i	T	1			of Repair		·
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor					-	-	-	-
	Connector		4/25/2018	Handheld OGI	1	-	Would be unsafe to repair during the operation of the unit	-	•
l [Covers and Closed Vent Systems			-	-		-	•	-
	Flange		•	-			-	•	-
	Instrument		4/19/2018 11/22/2108	Handheld OGI	2	-	Requires a well shutdown or well shut- in	•	-
before 8/2/2017	Meter		12/14/2017 4/19/2018	Handheld OGI	1		Requires a well shutdown or well shut- in	1	-
[Open-Ended Line				-		-	-	-
	Other		<u> </u>				-	-	-
	Pressure Relief Device		-	-	-	-	-		-
	Thief Hatch or Other Vessel Opening		<u> </u>	-			-	-	-
	Valve		6/5/2018	Bubble Check	3	2	Requires a well shutdown or well shut- in	-	-
	Compressor		-		•	•	-	<u>-</u>	• -
	Connector	•	-	-			-		-
	Covers and Closed Vent Systems			-	-	-	-		•
	Flange		-	·	-		-		-
	Instrument	-			-	•	-		<u> </u>
8/11/2017	Meter	-	-	-	<u> </u>		- "-	<u> </u>	•
	Open-Ended Line	-	-	-		-	•	-	•
	Other	<u> </u>	-			-	-	-	-
	Pressure Relief Device	-		-	-			•	-
	Thief Hatch or Other Vessel Opening	-	-	<u> </u>		<u> </u>		<u> </u>	-
	Valve	<u> </u>		-		-	-	<u> </u>	<u> </u>
	Compressor		<u> </u>	-	-		·	<u> </u>	-
	Connector		-	-	-	-	·		<u>-</u>
	Covers and Closed Vent Systems	-	-	· ·	-		<u> </u>	·	
	Flange	-		-	-	<u> </u>		•	<u>-</u>
ļ , , , , , , , , , , , , , , , , , , ,	Instrument	-	-	-	-	_ •	-	•	
9/15/2017	Meter	<u> </u>		-		-	·	· ·	-
	Open-Ended Line	<u> </u>	-	<u> </u>	•		·	-	<u> </u>
l l	Other	<u> </u>	-	-		-	<u> </u>		<u>-</u>
1 1	Pressure Relief Device	<u> </u>	-	-	-	-		<u>-</u>	
.	Thief Hatch or Other Vessel Opening	-	-				-	•	<u> </u>
	Valve_	•			-	-	-	·	•

				Table 2.	Monitoring Survey	Results			
		r		1	incinconing curvey	On Delay	of Repair		T
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-					-	•	•
	Connector	2	4/28/2018	Handheld OGI	2	1	Requires a well shutdown or well shut- in	•	-
	Covers and Closed Vent Systems		-			•	-	-	-
	Flange		· ·	-	-		-	•	•
	Instrument	·	•		-		-	-	•
11/22/2017	Meter		•	-			•	•	•
	Open-Ended Line	-	•	-	•		-	•	-
	Other	-	•	-	•		-	<u>-</u>	-
	Pressure Relief Device	<u> </u>	-	-	-	-	-	-	•
	Thief Hatch or Other Vessel Opening	<u> </u>	-	-	-	-	-	-	
	Valve	2	4/28/2018 1/6/2018	Handheld OGI	-	-	-	2	-
	Compressor	-	-	-	•		-	·	-
	Connector	-	•	-	•	•	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	
	Flange	<u> </u>			•		-	•	-
	Instrument		-			•	-	-	-
11/27/2017	Meter			-	-	•	-		•
	Open-Ended Line	•	•	•	•		<u> </u>	•	•
	Other		•		-	-	•	-	•
	Pressure Relief Device		•	-	-	-	-	•	•
	Thief Hatch or Other Vessel Opening			•	•	-	-	•	•
	Valve		-	-	-		-	-	•
	Compressor		•	-	-	-			-
	Connector			-	-		•	-	•
	Covers and Closed Vent Systems		•	-			-	<u> </u>	
	Flange		-	-	•	•	-		•
	Instrument	<u> </u>	<u> </u>	-		•	-	-	
3/13/2018	Meter		-	-	-	-	•		•
	Open-Ended Line		-	-	-	-	•	<u> </u>	
	Other	-	-	-	-		•		-
	Pressure Relief Device	•	-	•	-		-	<u>-</u>	
	Thief Hatch or Other Vessel Opening		-	-	-		•		-
	Valve	-		-	-		-	-	

 Location:
 Drill Site 14
 Latitude (NAD83):
 70.23824
 Longitude (NAD83):
 -148.59402

						Table 1.	Monitoring Survey I	Details 1				
		Sui	rvey			Tech	nician	N	ionitoring Instrume	nt		
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/12/2017	7:52:00 AM	9:49:00 AM	39	Overcast	3	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
1/1/2018	8:15:00 AM	9:45:00 AM	75	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIRGFX-320	74900237		
4/3/2018	7:27:00 AM	4:05:00 PM	3	Overcast	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Wells and piping
4/4/2018	7:48:00 AM	12:40:00 PM	50	Overcast	9	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900237	None	Wells and piping
4/5/2018	7:25:00 AM	12:08:00 PM	80	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900237		Modules
4/23/2018	7:46:00 AM	2:39:00 PM	67	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		
4/24/2018	7:59:00 AM	1:12:00 PM	69	Clear	0	8. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237		Inside modules

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor					-	-	-	
	Connector		4/24/2018 5/12/2018 6/10/2018 6/11/2018	Handheld OGI	9	2	Requires a well shutdown or well shut- in or unsafe to repair during the operation of the unit	-	-
	Covers and Closed Vent Systems		-	-	-	•	-	•	-
	Flange		3/30/2018 3/31/2018	Handheld OGI	2	-	Requires a well shutdown or well shut- in	-	
before 8/2/2017	Instrument		6/10/2018	Handheld OGI	1		Requires a well shutdown or well shut- in	•	-
	Meter		4/15/2018	Handheld OGI	9	7	Requires a well shutdown or well shut- in	•	-
	Open-Ended Line						-	<u> </u>	
	Other		· · · · · · · · · · · · · · · · · · ·	•			-	<u> </u>	
	Pressure Relief Device		•	-	-	-	-		-
	Thief Hatch or Other Vessel Opening				-	-	Requires a well shutdown or well shut-		
	Valve		3/6/2018 4/15/2018	Handheld OGI	36	27	in	-	-
	Compressor	-	-	-	-	•	-	•	-
	Connector	1	9/12/2017			-	-	<u> </u>	-
	Covers and Closed Vent Systems	<u> </u>	-		-	-		-	
	Flange	ļ	-	<u> </u>		-	-	•	
9/12/2017	Instrument Meter	-	-	•	•	-			<u> </u>
9/12/2017	Open-Ended Line					•		<u> </u>	<u>-</u>
	Other	-	-		-	-	-	· · ·	-
	Pressure Relief Device	 	-	-	-	-	-	<u> </u>	<u> </u>
	Thief Hatch or Other Vessel Opening	 -					-	<u> </u>	-
	Valve	 	-		-		-		
	Compressor		-	-	-				
r	Connector								
	Covers and Closed Vent Systems	-	-		-	-			
	Flange		-		-		_		
	Instrument	 			_				
1/1/2018	Meter	-	-		-			· · · · · · · · · · · · · · · · · · ·	
-, -,	Open-Ended Line	_	-			-		-	
	Other	-	-	-	-	-			
	Pressure Relief Device	-	-			-	-		
	Thief Hatch or Other Vessel Opening			-		-		-	-
	Valve	-	-	-	-	-			-
	Valve		-			-	<u> </u>	<u> </u>	-

				Table 2.	Monitoring Survey				
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-		-		<u>-</u>	-	
<u> </u>	Connector	1	4/3/2018	Handheld OGI		-	•	•	
ļ	Covers and Closed Vent Systems	-		<u> </u>	•	-	·	·	<u> </u>
i -	Flange	-	-		-	-	-	-	-
⊢	Instrument	-	-	•		•		-	·
 	Meter	-	-	-		:	-	•	
4/3/2018	Open-Ended Line Other	-		-	<u> </u>			· · ·	
F	Pressure Relief Device	-	-	-	· ·	•	-		-
	Thief Hatch or Other Vessel Opening	-	_	-			-	-	
	Valve	3	4/4/2018 4/15/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in and would be unsafe to conduct during the operation of the unit		-
L	Compressor		-	-		<u> </u>	-	-	-
	Connector		-	-	-		-	-	-
	Covers and Closed Vent Systems			•	·	-	-	-	-
⊢	Flange	-	-	•	·	<u> </u>	-	•	-
4/4/2018 -	Instrument Meter	-		-	-	-	·	-	
4/4/2018	Open-Ended Line	-	-	-	-		-		· · · · · · · · · · · · · · · · · · ·
 	Other						-		
l	Pressure Relief Device	-	-			-	-	•	
F	Thief Hatch or Other Vessel Opening	-	-			-	-		-
	Valve	-		_	-		-	-	-
	Compressor		-	-	-		-	-	
	Connector	4	-	-	4	4	Requires a well shutdown or well shut- in or would be unsafe to conduct during the operation of the unit	-	
L	Covers and Closed Vent Systems	-	-	-	-	•		<u> </u>	•
L	Flange	-		-	-		•	<u> </u>	
-	Instrument	-	-	-			-	-	<u> </u>
4/5/2018	Meter	1	-	-	1	1	Requires a well shutdown or well shut- in and would be unsafe to conduct during the operation of the unit	-	
ı	Open-Ended Line	-	-	·	-		-	<u> </u>	<u> </u>
	Other		-	•			-	<u> </u>	•
	Pressure Relief Device	-		<u> </u>		 	-	· · · · · · · · · · · · · · · · · · ·	•
	Thief Hatch or Other Vessel Opening Valve	2	6/12/2018	Handheld OGI	2	1	Requires a well shutdown or well shut- in or would be unsafe to conduct during the operation of the unit	-	-
l L	Compressor			·	•		<u> </u>	<u> </u>	•
	Connector	5	4/23/2018 5/13/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in	<u>-</u>	
L	Covers and Closed Vent Systems		<u> </u>		•	<u> </u>		-	•
	Flange	-			-			· · · · · · · · · · · · · · · · · · ·	·
	Instrument Meter	1		-	1	1	Requires a well shutdown or well shut- in		-
4/23/2018	Open-Ended Line	-	•	-	-		-	-	-
	Other	-	-	•	-	-		-	-
	Pressure Relief Device	-	-	-	-	-	-	-	•
	Thief Hatch or Other Vessel Opening	-	-		•	-	-	<u> </u>	•
	Valve	2	-	-	2	2	Requires a well shutdown or well shut- in or would be unsafe to conduct during the operation of the unit	-	-

				Table 2.	Monitoring Survey					
						On Delay	of Repair			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor	•	-	•	-	-	•	•	-	
	Connector	2	4/24/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in	•	-	
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-	
	Flange	•	•		-		-	•	-	
4/24/2018	Instrument			-		•	-	•	-	
4/24/2018	Meter	-	-			٠	-	-	-	
	Open-Ended Line			•			-	•		
	Other	•	•		-		-	•		
1	Pressure Relief Device	-	-	-			-	-	-	
1	Thief Hatch or Other Vessel Opening	-	-	-	-	•	•	-	-	
	Valve	-	-	-	•		-	<u> </u>		

Location:	Drill Site 15	Latitude (NAD83):	70.29845	Longitude (NAD83):	-148.57740
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						Table 1.	Monitoring Survey	Details 1				
		Sui	rvey			Technician Monitoring Instrument						
Date					Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/26/2017	3:36:00 AM	3:03:00 PM	47	Overcast	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284		Start up support
9/14/2017	9:50:00 AM	11:25:00 AM	35	Clear	4	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The resurvey of one item occurred	
11/14/2017	8:45:00 AM	3:00:00 PM	11	Overcast	3	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	more than 30 days after the repair.	Full pad scan
3/8/2018	8:02:00 AM	8:57:00 AM	69	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		

¹ in accordance with 40 CFR 60.5397a[g](1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
	:	1				On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	· -	•	-	•		•		
	Connector			-			-	- '	
	Covers and Closed Vent Systems	-		-	-		-	-	•
1	Flange	-	-	-		-	-	•	-
	Instrument	-	-	-	-	-		-	•
8/26/2017	Meter	· · · · · · · · · · · · · · · · · ·	-	•	-	-	-	-	•
	Open-Ended Line	-	-	-	-	-	-	-	-
	Other		-				-		-
	Pressure Relief Device		-	-		•	-		-
	Thief Hatch or Other Vessel Opening	-	-	-			-		-
	Valve	1	8/28/2017	Handheld OGI	-		•	•	-
	Compressor		-	-				•	-
	Connector	-	-	-			•	-	-
	Covers and Closed Vent Systems	-	-	-	-		•	-	•
	Flange	-	-	-	-	-		-	
	Instrument	-	-	-	-	-	-		-
9/14/2017	Meter	T -	-	-	-	-	•	-	•
	Open-Ended Line	-	-	-	-	-	•	-	•
	Other	•	•	•	•		-	•	-
	Pressure Relief Device	-			•		-	•	<u>-</u>
	Thief Hatch or Other Vessel Opening			-	-	-	-	•	-
	Valve	-		•		·	-	-	•
	Compressor	-	-	-		-	•	-	•
	Connector	-		•		•	-		•
	Covers and Closed Vent Systems	-	-	-	-	-	-		-
	Flange		-	-	-	-	-	-	-
	Instrument	-	-	-	-		-	•	-
	Meter	I		-		•	•		•
11/14/2017	Open-Ended Line	-	-	-	-			-	•
11/14/201/	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device	-	-	-		-	•	-	•
	Thief Hatch or Other Vessel Opening		-		-	-	-	-	-
	Valve	2	5/20/2018	Handheld OGI	2	1	Requires a well shutdown or well shut- in or would be unsafe to repair during the operation of the unit	-	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-		-	-	•	-	-
	Connector	-	-	•			•	-	
	Covers and Closed Vent Systems	-	•	•	•	•	-	-	-
	Flange	-	-	-	-	-	•	•	•
	Instrument	- ·					-	-	-
3/8/2018	Meter		•		•	•	•		-
	Open-Ended Line	•	•	•	•	•	•	-	-
	Other	-	-	-	-	-	-	·	-
	Pressure Relief Device			-	-		•	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	•		•		-	-	-

Drill Site 15

 Location:
 Drill Site 16
 Latitude (NAD83):
 70.21008
 Longitude (NAD83):
 -148.22919

						Table 1.	Monitoring Survey I					
		Sui	rvey			Tech	nician	M	lonitoring Instrume	nt		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/8/2017	10:56:00 AM	1:43:00 PM	52	Overcast	4	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284		Outside piping
9/15/2017	8:45:00 AM	10:12:00 AM	47	Overcast	3	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The resurvey of two items occurred	
12/31/2017	7:40:00 AM	8:35:00 AM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	more than 30 days after the repair.	
3/18/2018	9:00:00 AM	4:35:00 PM	70	Partly Cloudy	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	more than 30 days after the repair.	Inside modules only
3/19/2018	10:14:00 AM	4:00:00 PM	-6	Partly Cloudy	6	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		T		Γ΄		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-	•	-	<u> </u>	-
	Connector		3/18/2018 4/29/2018 6/2/2018	Handheld OGI 8ubble Check	8	-	Requires a well shutdown or well shut- in or would be unsafe to repair during the operation of the unit	•	-
	Covers and Closed Vent Systems		-		•	-	-	-	· .
	Flange		•	-	-	•	-	-	
	Instrument		3/18/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-	
before 8/2/2017	Meter		1/23/2018 2/9/2018 3/30/3018	Handheld OGI	4		Requires a well shutdown or well shut- in	-	-
i	Open-Ended Line		-	-	-	•	-	•	-
1	Other		-	-	-	-	-	-	-
	Pressure Relief Device		•		-	-		-	-
	Thief Hatch or Other Vessel Opening		•	-	-	-	-	-	•
	Valve		1/23/2018 2/18/2018 7/3/2018 7/28/2018	Handheld OGI 8ubble Check	6	2	Requires a well shutdown or well shut- in	-	-
	Compressor		•	-	•	•	-	-	-
	Connector	-	-				-	<u> </u>	-
	Covers and Closed Vent Systems	-		•	-		-	-	-
	Flange		-			•	-	-	-
1	Instrument		•		•	•	-		
8/8/2017	Meter	-	-	-		•	-	-	<u>-</u>
0,0,201,	Open-Ended Line	-	-	•		-	-	•	
	Other		-	-	•	•	-	•	-
į l	Pressure Relief Device	•	•	•	•	•	-	-	<u>-</u>
	Thief Hatch or Other Vessel Opening	-		-	-	•	-	•	-
	Valve	1		•	1	1	Would be unsafe to repair during the operation of the unit	-	-

7 TO 10 TO 1		and the same of the same		Table 2.	Monitoring Survey	Results			
					11 11 11 11	On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-	-	-	-	-	-
	Connector	-		-	-	-	-	-	-
	Covers and Closed Vent Systems		-	·	-		-	-	-
	Flange	<u> </u>	-	 	· · · · · · · · · · · · · · · · · · ·				-
	Instrument	-	-	_	-	-		<u> </u>	-
9/15/2017	Meter	-	-	_	-	_	-	-	-
5, 15, 201,	Open-Ended Line	_				-		-	
	Other	<u> </u>	-	-	-	-	-	<u> </u>	
	Pressure Relief Device	· .			-	-		<u> </u>	-
	Thief Hatch or Other Vessel Opening	-				-	-		-
	Valve	+ :	- :		-	:		<u>-</u>	
		+			-				
	Compressor			•			-		
	Connector	· · · ·	-		-	•		-	
	Covers and Closed Vent Systems	•	-	-	-	-	-	<u> </u>	·
	Flange	-	-	•		-	-	<u> </u>	
	Instrument	•	-	-		•	-	•	-
12/31/2017	Meter	-	-		-	•	-	•	-
	Open-Ended Line	-	-	-	-	•		·	-
	Other	-	-	-	-	•		<u> </u>	·
	Pressure Relief Device	-	-	-	-		-	<u> </u>	·
	Thief Hatch or Other Vessel Opening	<u> </u>	-	-	•	-	•	<u> </u>	·
	Valve	-			-		-	-	-
	Compressor	-			-	-	-		
	Connector	1	3/30/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	-		-	-	-	-	•	-
	Flange	-	-	-	-	-	-	•	
	Instrument	1	3/30/2018	Handheld OGI	-	-	-	•	-
	Meter	4	3/18/2018 3/30/2018	Handheld OGI	-	-	-	•	-
	Open-Ended Line	-		-	-		-	-	
3/18/2018	Other	1		-		-	-	-	
	Pressure Relief Device	1 .	-	-	_	-	-	•	-
	Thief Hatch or Other Vessel Opening	·	-	-	-		-	•	-
	Valve	6	3/18/2018 3/19/2018 3/20/2018 3/30/20108 7/8/2018 7/28/2018	Handheld OGI Bubble Check	2		Requires a well shutdown or well shut- in	-	
	Compressor	-		-	-	-	<u>-</u>		•
	Connector	-	-	-	-	-	<u>-</u>	-	
	Covers and Closed Vent Systems	-	-	-	-	-		<u> </u>	
	Flange		-		-		-		-
	Instrument		-	-	-	-	-	-	-
3/19/2018	Meter	-		-	-	-	-	-	-
3/19/2018	Open-Ended Line	-	-	-	-	•	-	-	
	Other	-	-				-	-	-
	Pressure Relief Device		-	i -	-	-	-	•	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-		-	-
		1					Requires a well shutdown or well shut-		1
	Valve	1	-	-	1	1	in	-	-

 Location:
 Drill Site 17
 Latitude (NAD83):
 70.2 065
 Longitude (NAD83):
 -148.31556

				×			Monitoring Survey I					
	Г	Su	rvey		1	Tecl	nnician	N	lonitoring Instrume	nt .	\$	
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
4/29/2018	12:33:00 PM	3:53:00 PM	69	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	The repair of one item occurred	Inside module
5/1/2018	11:33:00 AM	4:19:00 PM	44	Fog	5	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	more than 30 days after the date of	Inside module, well houses and outside piping
5/2/2018	12:35:00 PM	5:12:00 AM	22	Partly Cloudy	4	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	one item occurred more than 30 days	
6/19/2018	11:24:00 AM	12:30:00 PM	60	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	one item occurred more than 30 days	Start up support
6/26/2018	9:37:00 AM	10:10:00 AM	67	Clear	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	aiter the repair.	

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudinoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
	<u> </u>				I	On Delay	of Repair		I
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	•	•	•	-	-	-
	Connector	3	4/29/2018 5/2/2018 7/21/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	-		-	-	-	-	-	-
	Flange		-		<u> </u>		-	•	•
	Instrument	1	5/2/2018	Handheld OGI	-	•			•
4/29/2018	Meter	3	5/2/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in	•	-
	Open-Ended Line	-	-		-		-	•	-
	Other	-	-	-	-		-	•	-
	Pressure Relief Device		-	-	-	•	•	-	-
	Thief Hatch or Other Vessel Opening		-	-	•	•	-	•	-
	Valve	9	4/29/2018 5/2/2018 7/24/2018 7/28/2018	Handheld OGI Bubble Check	3	1	Requires a well shutdown or well shut- in	-	-
	Compressor	-	-	•		•	-	<u>-</u>	-
	Connector	3	5/2/2018 7/28/2018	Handheld OGI Bubble Check	1	٠	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	-	-	•			-	-	•
	Flange		-	•	•	•	-	-	-
	Instrument	-			-		-	-	-
5/1/2018	Meter	-			•	-	•	-	•
	Open-Ended Line	•	-	•	-		-		
	Other	-	-	•	•	•	-	-	
	Pressure Relief Device	-	-	-	-	•	•	•	•
	Thief Hatch or Other Vessel Opening	_	-	-		-			-
	Valve	10	5/2/2018 6/9/2018	Handheld OGI Bubble Check	5	5	Requires a well shutdown or well shut- in	1	-

				Table 2.	Monitoring Survey	Results	`		
	T .		T			On Delay	of Repair	· · · · · · · · · · · · · · · · · · ·	
Survey Date	Component	Fugitive Emissions Detected	Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	•	•	-	-	•	-
	Connector		•	-	•	•	-	•	-
	Covers and Closed Vent Systems	-					-	•	-
	Flange	-	-	-	-		-		-
	Instrument	-	-	-	-		•	-	-
5/2/2018	Meter	-	-	•		-	•	-	-
	Open-Ended Line	-	-	-	-		-	•	-
	Other	•	•	-	-	-	•	-	=
	Pressure Relief Device			•	-		•	•	-
	Thief Hatch or Other Vessel Opening	-	-	•	•			•	-
	Valve	1	5/2/2018	Handheld OGI			•	-	-
	Compressor		•		•	-	-	-	-
	Connector	-	•				-	•	
	Covers and Closed Vent Systems	-			•	-	-	-	-
	Flange			•	•		-	•	-
	Instrument		•		•		-	•	-
6/19/2018	Meter	-	-	-			-		-
	Open-Ended Line	-							-
	Other		-	-	-		-	•	-
	Pressure Relief Device	-	-		•		•	•	-
	Thief Hatch or Other Vessel Opening		•	•	•		•	•	· ·
	Valve	-	-	-				•	-
	Compressor	I	-		-	-		,	-
	Connector		-			•	1	•	-
	Covers and Closed Vent Systems	-			-		-		
	Flange			•	•	•	-		-
	Instrument	-	-	-	-	-	•		-
6/26/2018	Meter	-	-	-	-		•	•	-
	Open-Ended Line				-		-	•	-
	Other	-	-	-	-		•	-	-
	Pressure Relief Device	-	-		•	-	•	-	-
	Thief Hatch or Other Vessel Opening	-			•		-	•	-
	Valve	-	-	-	-			-	-

 Location:
 Drill Site 18
 Latitude (NAD83):
 70.29637
 Longitude (NAD83):
 -148.44638

						Table 1.	Monitoring Survey I	Details 1				
		Sui	vey			Tech	nician	M	lonitoring Instrume	ent		
Date	Date Begin Time End Time Ambient Temp Sky Conditions Maximum W Speed (mpl					Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/13/2017	7:41:00 AM	9:12:00 AM	47	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
11/10/2017	9:30:00 AM	3:30:00 PM	18	Overcast	8	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	None	Full pad scan
3/10/2018	7:18:00 AM	7:55:00 AM	68	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

			•	Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	•	-	•		•	•	-	l
	Connector		-		-	•	-	-	.
	Covers and Closed Vent Systems		-		-		•	-	-
	Flange	•	•	-		<u> </u>		-	-
	Instrument	-	-		-	-	-	-	-
9/13/2017	Meter		-	-	-	•	-	<u>-</u>	-
	Open-Ended Line	-	-	-	-	•	•	-	
	Other	-	-	-	-	-	•	-	•
	Pressure Relief Device		-	-		-	•	-	<u>-</u>
	Thief Hatch or Other Vessel Opening	<u> </u>	-		-		•	-	-
	Valve	1	10/2/2017	Handheld OGI	-	-	· ·	-	•
	Compressor		•	•	•	•	-	-	-
	Connector	<u> </u>	<u> </u>		-	-	-	<u>-</u>	•
	Covers and Closed Vent Systems		-		-		•		•
	Flange	•	•	•	-	•	-		•
	Instrument	•	-		-		-	-	-
11/10/2017	Meter	-	•		-	•	<u>-</u>	-	•
11/10/201/	Open-Ended Line	-	-		-		•	-	•
	Other	•	-	•			-	-	-
	Pressure Relief Device	-	•		-		•	•	•
	Thief Hatch or Other Vessel Opening	-			-	-	-	-	•
	Valve	1	6/20/2018	Bubble Check	1		Requires a well shutdown or well shut- in	-	
	Compressor	-	-	-	-	-	•	-	-
	Connector	-	•		-	-	-	-	•
	Covers and Closed Vent Systems	-		-	-	-		•	•
	Flange		•		-	-	-	. -	-
	Instrument	-	-		-		•	-	-
3/10/2018	Meter	-	-		-		•	-	•
	Open-Ended Line	-	-		-	-	-	-	•
	Other	-		-	-	-	-	-	•
	Pressure Relief Device				-		-		•
[Thief Hatch or Other Vessel Opening		•			-		-	•
	Valve	-	-		-	-		-	

 Location:
 Drill Site L1
 Latitude (NAD83):
 70.33589
 Longitude (NAD83):
 -148.47279

						Table 1.	Monitoring Survey I	Details ¹				
		Sui	rvey			Tech	nician	M	lonitoring Instrume	nt.		
Date	Date Begin Time End Time (*F) Sky Conditions Speed (mph)				Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/11/2017	8:00:00 AM	10:33:00 AM	42	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of one item occurred	
10/23/2017	7:53:00 AM	10:00:00 AM	57	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401573	more than 30 days after the repair.	Inside modules and well houses
3/19/2018							IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	more than 30 days after the repair.	

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
				I		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-	-	-		•	-
	Connector	-	-	-	•		-	-	-
	Covers and Closed Vent Systems	-	-	-			·	-	•
	Flange	-		•	•	•	-	-	-
	Instrument	-		-		-	-	-	-
9/11/2017	Meter	1	-	-	1	1	Requires a well shutdown or well shut- in		
	Open-Ended Line	•					-	-	-
	Other	•	-	-		-		•	•
	Pressure Relief Device		•	•	•	•	-	-	•
	Thief Hatch or Other Vessel Opening			-	•	•	-	-	
	Valve	1	9/11/2017	-	•	•	-	=	-
	Compressor	·	-	-		-	-		•
	Connector	1	11/8/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in and a vent blowdown	•	-
	Covers and Closed Vent Systems			-			-	-	-
	Flange	•		-		-	•	-	•
10/23/2017	Instrument			-	•		•		•
10/23/2017	Meter	-		-	٠	•	•	-	-
	Open-Ended Line	•		-	•		-	-	•
	Other	-		-		-	-	-	•
	Pressure Relief Device	-	•	-	•	-	-	-	-
	Thief Hatch or Other Vessel Opening	•	-	-			•	-	•
	Valve	-					<u>-</u>		-
	Compressor	-		-	•		-		-
	Connector	-		-			-		-
	Covers and Closed Vent Systems	•	·	-			•		-
	Flange			-	-	-		<u> </u>	
	Instrument	-	-	-		-	-	<u> </u>	-
3/19/2018	Meter	-					-	<u> </u>	<u> </u>
	Open-Ended Line	-		-	-	-	-		<u> </u>
	Other	-			-	-	-	·	<u> </u>
	Pressure Relief Device	-	-	-	•	•			-
	Thief Hatch or Other Vessel Opening	-	-	-	•	-	-		
	Valve				•	•		·	•

 Location:
 Drill Site L2
 Latitude (NAD83):
 70,30435
 Longitude (NAD83):
 -148,43976

						Table 1.	Monitoring Survey I	Details ¹				
		Su	rvey			Tech	ınıclan	M	ionitoring instrume	nt		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/11/2017	10:50:00 AM	11:42:00 AM	42	Partly Cloudy	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044		
9/13/2017	12:45:00 PM	2:05:00 PM	60	Partly Cloudy	3	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair and resurvey of one item	Artificial lift startup scan
10/26/2017	8:14:00 AM	10:20:00 AM	58	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	occurred more than 30 days after the	completed outdoor nining
11/25/2017	8:04:00 AM	8:49:00 AM	5	Overcast	5	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	30 days after the repair respectively.	Outdoor piping completed
3/19/2018	8:40:00 AM	9:20:00 AM	68	Overcast	Ö	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			·
		T		1		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-	-	-	
1	Connector				-		-	-	
	Covers and Closed Vent Systems		•		-	-		-	-
1	Flange		-	-	-	-		-	-
	Instrument		•	••	-	•	•	•	•
h-f 0/2/2017	Meter		•	•	1	1	Would require a vent blowdown	•	•
before 8/2/2017	Open-Ended Line		-	-	-	-		=	-
] [Other		-	-	-	-	-	<u>-</u>	-
	Pressure Relief Device			-	-		•	-	-
	Thief Hatch or Other Vessel Opening		-		•	•	-	•	•
	Valve		12/7/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	-
	Compressor	-		•	•	-	•	•	•
1	Connector		•	-		-	-	•	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
l [Flange	-	•			•	-	-	-
1	Instrument	-		-	-	-	-		-
9/11/2017	Meter	-	•	•	•		•	-	-
	Open-Ended Line	•	•	•	•	-	-	-	-
	Other	•	•	-	•	-	-	•	· -
	Pressure Relief Device	-	-	-	-	-	-	-	<u>-</u>
]	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	-	-	-	-	-	•	•	-
	Compressor			•	-		-	-	-
[Connector	-	-	•	-	-	-	-	-
I [Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
I .	Flange	-	-	-			•	-	-
[Instrument	-		•	•	•	-	<u>.</u>	-
9/13/2017	Meter	1	12/3/2017	Handheld OGI	-	-	-	1	-
[[Open-Ended Line		-	-	-	-	-		-
l {	Other			•	•		•		<u> </u>
l [Pressure Relief Device	-		•	•	•	-	•	-
ŀ	Thief Hatch or Other Vessel Opening	•	•	-	-	-	-	•	•
	Valve	•	•	-	-	-	-	-	

				Table 2.	Monitoring Survey	Results			
		T		1		On Delay	of Repair		,
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-	•	•	-		•
	Connector	2	10/26/2017	-	1	1	Would require a vent blowdown	-	•
	Covers and Closed Vent Systems	-	-	-	-	-	•	•	•
	Flange	•		•			-	-	<u>-</u>
	Instrument	-	-	-	•	•	•		•
10/26/2017	Meter		•	-			•	-	-
	Open-Ended Line		-	-		•	<u>-</u>	-	•
	Other	-		•	-		•	-	
	Pressure Relief Device	-		-	-	-		•	•
	Thief Hatch or Other Vessel Opening		-		•	•	•	-	-
	Valve	-		-	-	-	•	•	-
	Compressor			•	-		•	-	-
	Connector	-	-	-			-	-	
	Covers and Closed Vent Systems	-	-	-	-		-	-	•
	Flange	-	-	-	-	•	-	<u>-</u>	
	Instrument				-		-	-	•
11/25/2017	Meter				-		-	•	•
	Open-Ended Line	-			-			•	•
	Other	•	•			•	•	-	-
	Pressure Relief Device	-		-	-		•	-	•
	Thief Hatch or Other Vessel Opening	· .			-	•	•	-	-
	Valve	-	-	-	-	-	-	-	-
	Compressor	-	-		-	-	-	-	•
	Connector	<u>-</u>	-		-	•	•		-
	Covers and Closed Vent Systems	-	-		-	•	•	-	-
	Flange	-	-		· · · · · · · · · · · · · · · · · · ·	-	<u> </u>	-	•
	Instrument	•		•	•		-	•	
3/19/2018	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line		-		-	-	•	-	-
	Other	-				-	•	-	
	Pressure Relief Device	-	-	-		-	-	•	•
	Thief Hatch or Other Vessel Opening	-	-		-	-	•	•	•
	Valve	· -	-	-	-		-	-	•

 Location:
 Drill Site L3
 Latitude (NAD83):
 70.29740
 Longitude (NAD83):
 -148.31885

						Table 1.	Monitoring Survey L	Details ¹				
		Su	rvey			Tech	nician	N	lonitoring Instrume	nt	-	
Date	Date Begin Time End Time Ambient Temp Sky Conditions Maximum Wind Speed (mph)		Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments			
10/20/2017	8:15:00 AM	12:00:00 PM	5	Overcast	10	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		Initial full pad scan
12/26/2017	7:17:00 AM	8:35:00 AM	66	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	None	
3/6/2018	12:40:00 PM	2:00:00 PM	64	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900237		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Toble 2	Monitoring Survey	Rosuits			
		T		10010 2.	T	On Delay	of Renair		· · · · · · · · · · · · · · · · · · ·
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	T -	-	-	-	-	-	-	-
	Connector	-	-		-	-		-	
	Covers and Closed Vent Systems					-	·	•	•
	Flange	-		-		•	-	-	-
	Instrument	1	-	-	1	1	Would require a vent blowdown		•
10/20/2017	Meter	3		-	3	3	Requires a well shutdown or well shut- in or would require a vent blowdown	•	•
	Open-Ended Line	-	-	-	-	-	-	-	•
	Other	-	-	-	-	-		-	
	Pressure Relief Device	-			-	•	•	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-		-	-	-
	Valve	T -			-	-	-	-	-
	Compressor	-			•		-	•	-
	Connector				-	-	-	-	•
	Covers and Closed Vent Systems		•			-	-	-	-
	Flange		-	•	•	•	-	•	-
	Instrument	-	-	-	-		-	-	
12/26/2017	Meter	-	-	-		-	-	-	-
	Open-Ended Line	-	-	-		-		-	
	Other	-	-			-	-	•	-
	Pressure Relief Device	-	•	•		•	-	-	-
	Thief Hatch or Other Vessel Opening	-	•			-	-		•
	Valve	-		-	-	-	-	-	•
	Compressor	-	•	-	-	-	-	-	-
	Connector	1		-	1	1	Requires a well shutdown or well shut- in	-	٠
	Covers and Closed Vent Systems	-		-	-	-	-	-	-
	Flange	-	-	-	-	-	-	-	·
	Instrument	-	-	-	-	-	-	-	-
3/6/2018	Meter	-	-	-	-	-	-	-	•
	Open-Ended Line	-	-	-	-		-		
	Other	-	-	-	-	-		-	-
	Pressure Relief Device							•	•
	Thief Hatch or Other Vessel Opening		-				-	•	•
	Valve	1	-	-	1	1	Requires a well shutdown or well shut- in	-	-

 Location:
 Drill Site L5
 Latitude (NAD83):
 70.33351
 Longitude (NAD83):
 -148.23889

	Table 1. Monitoring Survey Details 1												
	Survey						nician	Monitoring Instrument					
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
9/10/2017	9:53:00 AM	10:50:00 AM	38	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044			
11/4/2017	7:40:00 AM	4:45:00 PM	36	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	The repair of one item occurred more than 30 days after the date of	Second full pad scan	
3/19/2018	10:25:00 AM	11:05:00 AM	64	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	leak discovery.		
6/23/2018	8:25:00 AM	8:40:00 AM	42	Partly Cloudy	1.2	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242			

in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		T		TODICE	International Bountey		of Repair		T
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
Ì	Compressor			-	-	-	•	•	-
	Connector		-	-	-	-	-	•	-
	Covers and Closed Vent Systems			-	-		-	•	-
	Flange		•	-	-		-	-	-
	Instrument			•	-	-	-	•	•
before 8/2/2017	Meter		10/22/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in	•	
1	Open-Ended Line		-		-	-	•		
1	Other		-	-			-		
	Pressure Relief Device		-	-	-		-	•	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	•	-
[Valve		-	•		-	-	-	•
	Compressor	•	-	-			-	•	-
Ī	Connector	1	9/10/2017	-				-	-
Ī	Covers and Closed Vent Systems		-	-	-		-	-	-
	Flange	-	-		-	-	· ·		
Ī	Instrument		-				· ·		
9/10/2017	Meter	-	-	-	-			•	-
	Open-Ended Line		-		-		-	•	-
	Other	-	-	-	-	-	-		
	Pressure Relief Device	•	-	-	-				-
	Thief Hatch or Other Vessel Opening			•	-		-	-	
	Valve		-	•	-	-	-	•	
	Compressor		-	•			-		-
Ţ	Connector	2	11/4/2017	-	1	1	Requires a well shutdown or well shut- in	-	-
Ī	Covers and Closed Vent Systems	•	-		-	•			-
Ī	Flange	-	-			-	•	-	•
	Instrument	1		-	1	1	Requires a well shutdown or well shut- in	•	-
11/4/2017	Meter	3	3/28/2018 5/15/2018	Handheld OGI	3	•	Requires a well shutdown or well shut- in		-
ľ	Open-Ended Line		-	•	-	-	•		•
Ť	Other		-	•	-	-	-	•	
1	Pressure Relief Device		-	-				•	-
ŀ	Thief Hatch or Other Vessel Opening	1	-	-	-		-	•	
	Valve	2	6/8/2018	Handheld OGI	2	1	Requires a well shutdown or well shut- in	-	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor				-	-	·	-	-
	Connector	-		-	-		<u>-</u>	-	-
	Covers and Closed Vent Systems			•		•	-	-	<u>-</u>
	Flange	-	-	-	-	-	•	-	-
	Instrument				-		-	-	•
3/19/2018	Meter	:				•	•	-	
	Open-Ended Line	· -			•		•	<u>-</u>	
	Other	-		•			-	-	
	Pressure Relief Device	-	-	-	-	-	-	-	•
	Thief Hatch or Other Vessel Opening	-	-	-	•	•	•	-	•
	Valve				-		•	•	-
	Compressor			•	-	-	-		
	Connector			•	•	•	-	-	-
	Covers and Closed Vent Systems			•	•		-	<u>.</u>	-
	Flange	-	-	-	•		•	-	-
	Instrument	-	-			•	•	-	•
6/23/2018	Meter	-	-	-		•	•	-	<u>-</u>
	Open-Ended Line	-	-	-	-	-	-	-	•
	Other	-	-	-	-	-	•	-	•
	Pressure Relief Device		•	-	-	-	-	-	•
	Thief Hatch or Other Vessel Opening				-	•	-	•	•
	Valve	-	-	-	-	-	-	-	-

 Location:
 Drill Site Niakuk
 Latitude (NAD83):
 70.34723
 Longitude (NAD83):
 -148.20311

	Table 1. Monitoring Survey Details ¹											
		Su	rvey			Tech	nician	Monitoring Instrument				
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/10/2017	9:16:00 AM	9:43:00 AM	38	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of two items occurred	
11/6/2017	8:20:00 AM	2:25:00 PM	19	Partly Cloudy	3	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	more than 30 days after the repair.	Complete pad scan
3/20/2018	9:50:00 AM	10:20:00 AM	64	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	more than 30 days after the repair.	

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
			1		Ι		of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-	-	•	-	•
	Connector		9/21/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in	•	•
	Covers and Closed Vent Systems		-	-	-		-	-	-
	Flange			-	-	-	•	-	-
before 8/2/2017	Instrument			•	-	•	·	<u> </u>	•
Derore 6/2/201/	Meter		-	-		-	-		-
	Open-Ended Line			-		-		-	-
	Other		•	-	-	-	•		-
	Pressure Relief Device		-	-			•		•
	Thief Hatch or Other Vessel Opening		-	-	-	-	•	-	-
	Valve		•	-	-	-		•	-
	Compressor		•	•	•	-	•	•	-
	Connector	-	•	•		•	-	•	
	Covers and Closed Vent Systems	-	-	-	-			-	•
	Flange	-	-	-	-	-	-		•
	Instrument				•		-	· · · · · · · · · · · · · · · · · · ·	-
9/10/2017	Meter						•		-
	Open-Ended Line	-	-	-	-	-		= = = = = = = = = = = = = = = = = = = =	-
	Other	-	-	-	-	-	•	<u> </u>	-
	Pressure Relief Device	-		-	·	-	-	-	•
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	•
	Valve			•		•	-	<u>-</u>	•
	Compressor	-	•	-	•		•	-	-
	Connector	2	-	-	2	2	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	T	-	-	-	-	-	-	-
	Flange		-	-		-	-	-	-
	Instrument	-	-	•	-	-	-	•	-
11/6/2017	Meter	1	-	-	1	1	Requires a well shutdown or well shut- in	-	•
	Open-Ended Line	-	-			-	-		-
	Other			•		-	-	-	
	Pressure Relief Device	1	4/12/2018	Handheld OGI	1	-	Would require a vent blowdown	-	-
	Thief Hatch or Other Vessel Opening			-	-	-	-	-	-
	Valve	4	11/6/2017	-	1	1	Requires a well shutdown or well shut- in	<u> </u>	-

	Table 2. Monitoring Survey Results On Delay of Repair												
		1				On Delay	of Repair						
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored				
	Compressor			-	-	-		-	-				
	Connector					•		-	-				
	Covers and Closed Vent Systems		-			-	-	-	-				
	Flange		-	-	-		-	-					
	Instrument	•	-	-	-	-	•	-	<u> </u>				
3/20/2018	Meter	•	-	-		•	•	•	-				
	Open-Ended Line		-		-	-	=	-	-				
	Other		-	-		-	-	-	-				
	Pressure Relief Device	-	-		•	-		·	·				
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	-	-				
	Valve			-		-	-	•	-				

Drill Site NK

 Location:
 Drill Site PM1
 Latitude (NAD83):
 70.39065
 Longitude (NAD83):
 -148.58447

	Table 1. Monitoring Survey Details 1												
	Survey						nician	Monitoring Instrument					
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
12/21/2017	8:15:00 AM	10:40:00 AM	74	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		Inside modules only, too windy for wells and piping	
1/20/2018	8:38:00 AM	9:25:00 AM	-23	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44402468	repaired during the next planned well shutdown.	Well houses only, too windy for piping	
1/26/2018	3:10:00 PM	3:55:00 PM	5	Overcast	1	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	Well structuowit.	Outside piping only	
3/6/2018	10:20:00 AM	11:20:00 AM	65	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900237			

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	•	-	-	•	-	-	•	•
	Connector			-	-	-	-	-	-
	Covers and Closed Vent Systems				-	-	-	•	-
[Flange	-			-	-	-	•	-
[Instrument			-	-	-	-	•	•
12/21/2017	Meter	1	12/21/2017	-	-	-	-	-	-
[Open-Ended Line		•	-	•		-	-	-
[Other			-	-		-	-	-
	Pressure Relief Device			·		_	-	·	-
	Thief Hatch or Other Vessel Opening	·		-	-		•	-	-
	Valve	-		-			•		-
	Compressor	•			•		-	·	-
[Connector	•		-		-		-	-
	Covers and Closed Vent Systems		•	-	-		-		•
	Flange						-	-	•
	Instrument	•		-			-	•	-
1/20/2018	Meter			•			-	•	-
	Open-Ended Line			•		-	-	•	
	Other			<u> </u>			-	-	-
	Pressure Relief Device			-			•	•	-
	Thief Hatch or Other Vessel Opening	-			•		•	•	•
	Valve			· · · · · ·	•		-	-	-
	Compressor	-		-			-	-	-
Į	Connector	-	-		-	-	<u> </u>	•	-
Ĺ	Covers and Closed Vent Systems				•	-	-	-	
	Flange			-	-		-	-	-
1	Instrument	-		•	•		<u> </u>	•	-
1/26/2018	Meter		-						
2,23,2020	Open-Ended Line	-		-	-	•	-	-	<u>.</u>
Ĺ	Other	-			-	-	<u>-</u>	•	
	Pressure Relief Device	-			•	-	-	-	•
	Thief Hatch or Other Vessel Opening				-	-	-		-
	Valve	1	-		1	1	Requires a well shutdown or well shut- in	1	-

				Table 2.	Monitoring Survey	Results			
				l		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected		Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-		-	-		· -	
	Connector	-	-		-	-	•		-
	Covers and Closed Vent Systems		-		-	•	-	-	-
	Flange	-	-	-	-	-	•	-	-
	Instrument	-	-		-		-	-	-
3/6/2018	Meter	-	-	•	-		•	-	-
J	Open-Ended Line	-	-				<u>-</u>		
	Other	-	-		-	-	-	-	-
1	Pressure Relief Device	-	-	-			-	•	-
ŀ	Thief Hatch or Other Vessel Opening		-	-	-	-	-	•	-
	Valve		-				-	-	-

Location:	A Pad	Latitude (NADB3):	70.26520	Longitude (NAD83):	-148,76039
LOCULION.			70.20320	rollBitude (IANDOS).	140.70033

	Table 1. Monitoring Survey Details 1													
		Sui	vey			Tect	nician	N	ionitoring instrume	ent				
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/17/2017	9:15:00 AM	11:05:00 AM	35	Overcast	12	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The repair of eight items occurred			
3/13/2018	7:57:00 AM	9:35:00 AM	71	Clear	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	more than 30 days after the date of leak discovery, the attempted date of			
3/15/2018	8:20:00 AM	10:00:00 AM	57	Partly Cloudy	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	repair for three items, repair date of two items and repair notes for five			
5/28/2018	7:27:00 AM	12:16:00 PM	21	Overcast	10	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	items were not recorded, and seven			
5/29/2018	7:41:00 AM	1:48:00 PM	69	Clear	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	items on delay of repair were not repaired during the next planned	Inside skids		
5/30/2018	8:01:00 AM	10:23:00 AM	69	Clear	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	well shutdown.	Inside skids		

¹ In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Toble 2	Monitoring Survey	Docules			
				l able 2.	Monitoring Survey		of Repair		,
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-		•	-	•
	Connector		Unknown 8/18/2017 8/21/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in	4	
	Covers and Closed Vent Systems		·	-	•	٠	-	-	•
	Flange			-			-	•	-
	Instrument		5/30/2018	Handheld OGI			-	1	-
before 8/2/2017	Meter		5/29/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	1	-
	Open-Ended Line		-	-	-	-	•	-	•
	Other		-	-	•	-	-	-	
	Pressure Relief Device			-	-	•	-	-	•
	Thief Hatch or Other Vessel Opening						-	-	-
	Valve		Unknown 8/12/2017 8/20/2017	Handheld OGI	5	5	Requires a well shutdown or well shut- in	9	-
	Compressor			-	-	•	-	•	-
	Connector					-	-	·	-
	Covers and Closed Vent Systems	-		-	-			-	•
	Flange	_	·	-	-		•	•	-
l l	Instrument			-			-	<u> </u>	•
9/17/2017	Meter				-	-	-		-
	Open-Ended Line	•		-	-		-		-
	Other	-		-	-		-		
	Pressure Relief Device	-		-	-	•	-	-	-
	Thief Hatch or Other Vessel Opening	-		-		-	-		-
	Valve	-	-		•	-	-	-	

		T		T	Monitoring Survey		of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	•	-	-	-
[Connector		-	-				-	-
	Covers and Closed Vent Systems			-	-	-	-	-	-
[Flange			-	-		-	-	-
	Instrument	<u> </u>	-	-			-		
3/13/2018	Meter	<u> </u>	-	-	•	-	-	<u> </u>	-
Į.	Open-Ended Line		-	-	•	·	-	•	-
	Other			-	-		-	<u> </u>	•
l l	Pressure Relief Device	-	<u> </u>		-	<u> </u>	-		•
	Thief Hatch or Other Vessel Opening	-	-		-			-	
	Valve		-	-			-	-	•
	Compressor	-	-	-	•		-	·	-
ļ	Connector			-	-	<u> </u>	-	<u> </u>	-
	Covers and Closed Vent Systems	<u> </u>	·	·	-	<u> </u>	-	<u> </u>	•
1	Flange	· ·	<u> </u>		-			-	-
	Instrument	•		-	-			<u>.</u>	-
3/15/2018	Meter	-	•	-		<u>-</u>	-	·	-
	Open-Ended Line	-	•	-	-	<u> </u>	-	<u> </u>	
ļ	Other	-		-	-	<u> </u>		<u> </u>	· · · · · · · · · · · · · · · · · · ·
ļ	Pressure Relief Device	<u> </u>		· -	•		-	<u> </u>	<u> </u>
	Thief Hatch or Other Vessel Opening	<u> </u>	-	-		<u> </u>	-	<u> </u>	<u> </u>
	Valve		· ·	-	-		<u> </u>	-	
	Compressor	<u> </u>				-	•	·	
ĺ	Connector	1	-	-	1	1	Requires a well shutdown or well shut- in	·	
	Covers and Closed Vent Systems	-					-	-	
	Flange	-			•		-	-	-
5/28/2018	Instrument	-	•		-		•		
3/20/2010	Meter	-		-	•	•	•	-	-
Į.	Open-Ended Line		L	-	-		-	•	•
Į.	Other	-		-			-	•	•
Į.	Pressure Relief Device	-		•	-		- [•	-
	Thief Hatch or Other Vessel Opening	<u> </u>	-	-	-		-		•
	Valve	-	-	-	-		-		•
	Compressor		<u> </u>		-		•	-	-
	Connector	1	-		1	1	Requires a well shutdown or well shut- in	-	•
	Covers and Closed Vent Systems	•	-	-	-	-	-	•	-
	Flange	2		-	2	2	Requires a well shutdown or well shut- in		-
	Instrument				-		-		-
5/29/2018	Meter	-		-			-		
ŀ	Open-Ended Line	-		-	-		-		
ŀ	Other		-				<u> </u>	-	
ŀ	Pressure Relief Device	-				-		<u>-</u>	
f	Thief Hatch or Other Vessel Opening	-		-					
ŀ	Valve	10			10	10	Requires a well shutdown or well shut-		

			7	Table 2.	Monitoring Survey	Results				
						On Delay	of Repair			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor		-			-	-		-	
	Connector	-	-				-	-	-	
·	Covers and Closed Vent Systems	-	· -			-	-	-	-	
	Flange		-	-			-	·	•	
	Instrument	-	-		-		•	-	-	
5/30/2018	Meter	-	-					<u>-</u>	-	
3/30/2016	Open-Ended Line	-		-	-	-			-	
	Other	-	-		•		-	-	-	
[Pressure Relief Device	-	-				-	-	-	
Ī	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	•	-	
Γ	Valve	1			1	1	Requires a well shutdown or well shut-	-	_	
			1		_		in			

Location: B Pad Latitude (NAD83): 70 2 @89 Longitude (NAD83): -148.67644

						Table 1.	Monitoring Survey D	Details 1				
		Su	rvey			Technician		Monitoring Instrument				
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
8/8/2017	7:39:00 AM	9:52:00 AM	51	Overcast	2	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred more than 30 days after the date of leak discovery, the resurvey of five	Outside piping
9/17/2017	11:15:00 AM	12:45:00 PM	38	Overcast	10	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	items occurred more than 30 days after the repair, the repair date of one item was not recorded, seven items on delay of repair were not repaired during the next planned	
11/10/2017	9:00:00 AM	5:10:00 PM	16	Overcast	9	T. Wolfe	IR Lvi 3/OGi (24)	Handheld OGI	FLIR GF-320	44401573	well shutdown, and one item on delay of repair was not repaired	Full pad scan

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-		-	•
	Connector		Unknown	-	1	-	Requires a well shutdown or well shut- in	1	•
	Covers and Closed Vent Systems		-	-	•	-		-	-
	Flange		-	-	-	•		•	-
	Instrument		-				-	-	-
before 8/2/2017	Meter		-	•	-	-	-	-	-
	Open-Ended Line				-	-		<u>.</u>	-
	Other		-		-		-	-	-
i i	Pressure Relief Device		-	-	•	•	-	-	-
l	Thief Hatch or Other Vessel Opening		-	-	•		-	•	-
	Valve		5/31/2018	Handheld OGI	5	1	Requires a well shutdown or well shut- in	5	-
	Compressor			-	•	•	-	•	-
	Connector	•	_	-			-	•	-
	Covers and Closed Vent Systems				•		-	-	-
	Flange		-	•	-	-	-	-	-
	Instrument	-		-		-	-		-
8/8/2017	Meter	-	-			<u> </u>	-	-	-
	Open-Ended Line	-	-	-		-	-	•	-
	Other		-	-		-	•	•	-
]	Pressure Relief Device			-		•	-	-	
	Thief Hatch or Other Vessel Opening	-	-				-	-	-
	Valve	-	-			-	-	-	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-		-	-	-	-	-	-
	Connector	-	-	-	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	•	•	-	-	-	-
ŀ	Flange		•	-	-	•	-	-	
	Instrument	-	-		-	-	·	-	
9/17/2017	Meter	-	-	-	•	-	•	-	-
	Open-Ended Line	-	-			-	-	-	-
	Other			-		-	•	•	
	Pressure Relief Device	-	-	-	•	•	•	-	•
:	Thief Hatch or Other Vessel Opening		•			-	-	-	
	Valve	-			-	-	-	-	-
	Compressor	-	-	•		-	·	-	
	Connector			-	-		-	-	•
	Covers and Closed Vent Systems	-	-	-	-	•	-		•
	Flange			•		-	-	-	
	Instrument	1	2/11/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-	-
11/10/2017	Meter	•	•	-					
	Open-Ended Line	•	-	-			-	•	-
	Other			-	-	-	-	-	-
	Pressure Relief Device	•		•	•	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-			
	Valve	4	2/15/2018 5/31/2018	Handheld OGI	3	2	Requires a well shutdown or well shut- in	3	-

Location:	C Pad	Latitude (NAD83):	70.29554	Longitude (NAD83):	-148.67093

							Monitoring Survey I	etails ¹			·	
		Su	rvey			Tecl	hnician	N	ionitoring instrume	nt		Comments
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	
8/6/2017	7:52:00 AM	10:27:00 AM	45	Overcast	6	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284		Outside piping
10/16/2017	9:15:00 AM	4:35:00 PM	30	Overcast	10	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573	more than 30 days after the date of leak discovery.	This was a second round full pad scan. The wind picked up later in tmorning to gusting to 20 mph. Th Inspection on the outside portions were only conducted during wind speed of 10 mph or below.
3/12/2018	8:45:00 AM	9:30:00 AM	65	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	_	

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2	Monitoring Survey	Results			
		Γ			l	On Delay	of Repair		T
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor			-	-		•	•	
	Connector	-	-		•		-	•	-
	Covers and Closed Vent Systems	-	-				-	•	-
	Flange			-		•	•	•	-
	Instrument			-	•		-	•	-
8/6/2017	Meter			-	•	-	•		-
	Open-Ended Line		•	-	-		-	•	-
	Other				-			•	-
	Pressure Relief Device				-	-	-		-
	Thief Hatch or Other Vessel Opening			-	-	-	•	-	-
	Valve	_ 1	2/12/2018	Handheld OGI	-			11	•
	Compressor		<u> </u>		-		-	•	
	Connector				-		•	·	
	Covers and Closed Vent Systems	-		<u> </u>	-	•	<u>-</u>	·	-
	Flange			•	-		-	-	
	Instrument			-	-		-	<u> </u>	-
10/16/2017	Meter	-		-	-		-	<u>-</u>	-
	Open-Ended Line		-	•	-	-	-	•	-
	Other	<u> </u>	-		•				
	Pressure Relief Device		-	•	•	-		· · · · · · · · · · · · · · · · · · ·	
	Thief Hatch or Other Vessel Opening		· · ·	·	-	-	<u> </u>		<u> </u>
	Valve	-	-		-	_	-		<u> </u>
	Compressor	-	-		-			•	<u> </u>
	Connector		•	-	-	•		•	<u>-</u>
	Covers and Closed Vent Systems				-			<u> </u>	•
	Flange	-		-	-	-		•	•
	Instrument		-	-	-	-	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
3/12/2018	Meter	-			•		-		
	Open-Ended Line		-	-	-	-	-	•	
	Other	_ •	<u> </u>			-		•	•
	Pressure Relief Device		-	-	-	-	<u> </u>	•	
	Thief Hatch or Other Vessel Opening		-		•	-	<u>-</u>	-	
	Valve	-		•	-		-	-	•

Location: D Pad Latitude (NAD83): 70.29578 Longitude (NAD83): -148.76040

	Table 1. Monitoring Survey Details ¹												
		Sur	vey			Tech	ınlcian	M	ionitoring Instrume	nt			
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
8/5/2017	10:57:00 AM	1:22:00 PM	66	Clear	4	8. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred	Outside piping	
11/18/2017	9:07:00 AM	11:55:00 AM	18	Overcast	8	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	more than 30 days after the date of	Full pad scan	
3/17/2018	1:30:00 PM	3:00:00 PM	67	Clear	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	leak discovery.		

in accordance with 40 CFR 60.5397a[g][1], fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

	Table 2. Monitoring Survey Results											
				T	l	On Delay	of Repair					
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored			
	Compressor	-	-	-		-	-	-	-			
	Connector		-	-	•	-		<u></u>				
	Covers and Closed Vent Systems		•	-	•	-	<u> </u>	-	•			
	Flange	<u> </u>	<u> </u>	-	-	-	·		<u> </u>			
	Instrument		<u> </u>	-		-		·	<u> </u>			
8/5/2017	Meter	-	· .				-		•			
	Open-Ended Line		-		-	-	<u>-</u>		-			
	Other						-		•			
	Pressure Relief Device	-	-	· -	-	-	-	·				
	Thief Hatch or Other Vessel Opening	-	-	-		-			-			
	Valve		<u> </u>	-	•			•	<u> </u>			
	Compressor		-	<u> </u>	-	· ·	-	· · · · · · · · · · · · · · · · · · ·	-			
	Connector		<u> </u>	· · · · ·	·	<u> </u>	-	•	· · · · · · · · · · · · · · · · · · ·			
	Covers and Closed Vent Systems		<u> </u>	<u> </u>	<u> </u>	<u> </u>		•	-			
	Flange		ļ .		· · · · · · · · · · · · · · · · · · ·			•				
	Instrument			-	•	<u> </u>	•	<u> </u>				
	Meter		-	-	-		-	•	-			
11/18/2017	Open-Ended Line	-	•		-	-	-	-	•			
	Other			<u> </u>	-		<u>-</u>	·				
	Pressure Relief Device		-	<u>-</u>	-	<u> </u>	•	-	-			
	Thief Hatch or Other Vessel Opening	<u> </u>	-	· ·	-	<u> </u>		<u> </u>				
	Valve	3	12/2/2017 4/1/2018 4/3/2018	Handheld OGI	1		Requires a well shutdown or well shut- in	1				
	Compressor		<u> </u>	-	-	•	-	<u> </u>	•			
	Connector	•	-	-	-		•					
	Covers and Closed Vent Systems	-		-	-	-	<u> </u>	<u> </u>				
	Flange	-			•	-	•	<u> </u>	-			
	Instrument	-	-	-	•	-	•	•	•			
3/17/2018	Meter	<u> </u>	<u> </u>	-	•	-	<u> </u>	 	-			
	Open-Ended Line	-		-	-	-		•	<u> </u>			
	Other	-		-	•	-	·	<u> </u>				
	Pressure Relief Device		·	<u> </u>	-	-		<u> </u>	<u>.</u>			
	Thief Hatch or Other Vessel Opening	<u> </u>	-	-	-	-		<u> </u>				
	Valve		-					-	-			

Location: E Pad	Latitude (NAD83):	70.33861	Longitude (NAD83):	-148.67143
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	Table 1. Monitoring Survey Details ¹													
		Su	vey	·		Technician Monitoring Instrumen				nent				
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)		Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
8/5/2017	7:4 2:00 AM	9:58:00 AM	53	Clear	6	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401 284	The repair of one item occurred more than 30 days after the date of	Outside piping		
11/6/2017	8:04:00 AM	3:54:00 PM	11	Partly Cloudy	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	1	Full pad scan day 1		
11/7/2017	8:13:00 AM	10:08:00 AM	28	Overcast	1	8. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Full pad scan day 2		

¹ In accordance with 40 CFR 60.5397a(g)[1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		T .			<u></u>		of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	•	•	-	-	I -
	Connector		-		•		-	<u> </u>	-
	Covers and Closed Vent Systems		•		· · · · ·	•	-	•	-
	Flange		11/7/2017	Handheld OGI	1	•	Requires a well shutdown or well shut- in	•	•
before 8/2/2017	Instrument		•	-	-		-	•	-
Del016 0/2/201/	Meter		-	-		-	-	<u>-</u>	-
]	Open-Ended Line			-	-		-	-	-
	Other			•	-		-	•	-
	Pressure Relief Device		-		-	-	-	•	•
	Thief Hatch or Other Vessel Opening			•	-	-	-		•
	Valve				-		•	•	-
	Compressor	-			-	-	-	•	-
	Connector	-			-		-		-
	Covers and Closed Vent Systems		-		-		-	•	-
	Flange	-				•	•	·	•
	Instrument	-			-		-	•	-
8/5/2017	Meter	-	-	-	-		-	-	•
	Open-Ended Line	-		-	-	-	•		-
	Other				-		-	•	-
	Pressure Relief Device	_			•		-	-	•
	Thief Hatch or Other Vessel Opening		-				-	-	
	Valve	-	-				•		-
	Compressor	-	•	-	-	-	-	•	-
	Connector	1	4/6/ 2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems		-			· .			•
	Flange		-		-		-		-
1	Instrument	-	-	-	•	•	-		
11/6/2017	Meter	-	-		-		-		-
	Open-Ended Line	-	-	-	-	-		•	•
	Other		-		-		-	·	-
	Pressure Relief Device	-	-		-	-	-	·	•
1	Thief Hatch or Other Vessel Opening	-	-	-		-			•
	Valve	2	4/6/2018 5/7/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	1	-

				Table 2.	Monitoring Survey	Results				
						On Delay	of Repair			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor		-	-	-	-	-	•	-	
	Connector	1	4/6/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-		
	Covers and Closed Vent Systems	-	-		•	-	·	-		
	Flange			-	-		-		-	
11/7/2017	Instrument	-	•	-	-	•	-	•	-	
11///2017	Meter	-	-	•			-	-	-	
	Open-Ended Line		-	-	-		-	-	-	
	Other	-		-	-		-	*	-	
	Pressure Relief Device	-		•	-	-	-	-	-	
	Thief Hatch or Other Vessel Opening				-		-	-	-	
	Valve		-	-	•		-	-		

 Location:
 F Pad
 Latitude (NAD83):
 70.33773
 Longitude (NAD83):
 -148.77005

	Table 1. Monitoring Survey Details ¹													
		Su	rvey			Teci	hnician	N	Nonitoring Instrume	ent				
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
8/4/2017	8:10:00 AM	10:02:00 AM	48	Overcast	3	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	The repair of one item occurred			
9/28/2017	8:25:00 AM	10:30:00 AM	30	Partly Cloudy	2	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	more than 30 days after the date of			
11/17/2017	9:07:00 AM	3:00:00 PM	11	Overcast	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	leak discovery and the resurvey of			
11/29/2017	1:47:00 PM	2:17:00 AM	75	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44400882	one item occurred more than 30 days	Call out		
3/17/2018	8:53:00 AM	11:00:00 AM	64	Clear	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	after the repair.			

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Survey					Monitoring Survey				
Survey		I			T	On Delay	of Repair	· · · · · · · · · · · · · · · · · · ·	
Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-	-	-	-
	Connector		•	-	-	-	-	-	•
	Covers and Closed Vent Systems			•	-	-	-	-	-
_	Flange		-	-		-	-	-	
	Instrument				-	-	· ·	-	-
before 8/2/2017	Meter		-		-		-	-	-
	Open-Ended Line		-	-	-	-		-	-
	Other				-		-	-	-
	Pressure Relief Device		-		_	-	•	-	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-		
. —	Valve		-	-			-		-
	Compressor		-	-				•	-
	Connector			-	٠.	-	-		
	Covers and Closed Vent Systems		-	-	-	-		-	
	Flange	-	-	-	-			•	-
	Instrument	_	-	-	-		,	-	
8/4/2017	Meter	•					•	•	•
L	Open-Ended Line	-		-			-	•	•
L	Other				-		•	<u>-</u>	•
L	Pressure Relief Device	•		-	-	-	<u> </u>		-
<u> </u>	Thief Hatch or Other Vessel Opening	-	-	-	-	-	<u> </u>	•	-
	Valve				-	-	-	-	<u> </u>
⊢	Compressor	-	-			-	•	•	-
⊢	Connector	11	9/28/2017		-		•	•	•
⊢	Covers and Closed Vent Systems	-		•	-		-	-	·
⊢	Flange Instrument	<u> </u>		-	-		<u> </u>	· · · · · · · · · · · · · · · · · · ·	
9/28/2017	Meter	 	<u>:</u>	-	-	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	·
3/20/201/	Open-Ended Line	-	•	-	•		-	-	·
-	Other	-		•		•		·	<u>-</u>
. -	Pressure Relief Device	 	<u> </u>	-	·				
	Thief Hatch or Other Vessel Opening	 			-				-
	Valve	 		· · · · · · · · · · · · · · · · · · ·	-				

				Table 2.	Monitoring Survey	Results			
		T		1		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-		-		-	•	-	-
	Connector				•		·	<u>-</u>	-
	Covers and Closed Vent Systems	-			•		-		•
	Flange		•		-	-	<u> </u>		-
	Instrument	-			-		-		
44/47/2017	Meter		-	-	-	-	-	•	-
11/17/2017	Open-Ended Line			-	-		-	•	<u>-</u>
	Other					-	-		
	Pressure Relief Device	-	-	-	-	-	-	•	-
	Thief Hatch or Other Vessel Opening	-		•	•	-	•	-	
	Valve	2	11/4/2017 3/27/2018	Handheld OGI	-	-	-	1	-
	Compressor	-					-	•	
	Connector				-	-	-	•	-
[Covers and Closed Vent Systems			-	•	-	•	•	-
	Flange	-		-	-		•		•
	Instrument	-		-			•	•	-
11/29/2017	Meter	-	-	-	-		-	-	-
L	Open-Ended Line	-		-			•	-	•
L	Other	-	-	•			<u> </u>	•	
L	Pressure Relief Device	-		•			-	-	-
	Thief Hatch or Other Vessel Opening	-	-			-		·	
	Valve	1	12/7/2017	Handheld OGI	-		-	. .	-
	Compressor	<u> </u>	•				-		
L	Connector	-	-		•			-	-
Ĺ	Covers and Closed Vent Systems		•				-	-	-
	Flange	-	•	-	-	-		•	-
	Instrument	-		-	-	-	<u>-</u>	-	•
3/17/2018	Meter				-		-	•	-
	Open-Ended Line	-	-		-		•	-	-
Ĺ	Other	-	-	•		<u> </u>	•	-	•
	Pressure Relief Device	-	-				-	-	-
	Thief Hatch or Other Vessel Opening			-			-	•	-
	Valve	-					-	-	•

F Pad

Location:	G Pad	_ Latitude (NAD83):	70.32197	Longitude (NAD83):	-148.72315
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	Table 1. Monitoring Survey Details ¹													
		Su	rvey			Tech	nician	Monitoring Instrument						
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Type Make/Model Serial Number		Deviations From Monitoring Plan	Comments		
8/4/2017	8:12:00 PM	12:57:00 PM	50	Overcast	3	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284				
9/28/2017	10:40:00 AM	12:45:00 PM	45	Overcast	2	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	None			
1/2/2018	10:57:00 AM	12:20:00 PM	63	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	None			
4/7/2018	8:24:00 AM	1:40:00 PM	3	Overcast	2	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236				

In accordance with 40 CFR 60.5397a[g](1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

		Monitoring Survey							
						On Delay	of Repair		l and the second se
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-		-	•	•
	Connector		Unknown	-	-		•	-	-
	Covers and Closed Vent Systems			•	-	-			
	Flange		-	-	-	-	-		-
1	Instrument		-	-	-	-	•	-	-
before 8/2/2017	Meter		-	-	-	-	•	-	-
	Open-Ended Line		-	-			-	-	-
	Other		-	-	-		-	-	-
	Pressure Relief Device		-	-	-	-		-	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	•	-	-
	Valve		-	-	-	-	•	-	-
	Compressor	-	-	-	-		-		
1	Connector	-	-	-	-		-	•	
[Covers and Closed Vent Systems	-	-	-	-	•	-	•	
[Flange		-	-	-	-		-	
1 [Instrument			-			•	-	-
8/4/2017	Meter	-	-	-	•	•	-	•	-
] [Open-Ended Line		-	-			•	•	-
]	Other	-		-	_ •		<u> </u>	<u>-</u>	
1 .	Pressure Relief Device	-	-	-		-		<u>-</u>	<u> </u>
1	Thief Hatch or Other Vessel Opening	<u> </u>	<u> </u>	•	-		-	•	·
	Valve	<u> </u>	-						-
	Compressor				-	-	-	-	•
	Connector	<u> </u>		-		•	-	-	<u>-</u>
	Covers and Closed Vent Systems	<u> </u>	-	-	-		·	-	
	Flange	-	<u> </u>	•	<u> </u>				
0/20/2017	Instrument Meter	-	-	-			· · · · · · · · · · · · · · · · · · ·		
9/28/2017	Open-Ended Line	-	-	•	_ :	· ·		·	
[Open-Ended Line Other	<u> </u>		•	_	-		<u>-</u>	
 	Pressure Relief Device	.	-			. -		•	-
l	Thief Hatch or Other Vessel Opening	-						· ·	<u> </u>
[Valve	-				<u> </u>			
	valve						·	·	

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	•	-	-	·	•	•
[Connector			-	-	-	•		-
	Covers and Closed Vent Systems	-	-	-	-		·		-
[Flange			•	-	-	•	-	-
ĺ	Instrument				-		-	•	-
1/2/2018	Meter	-		•	-	-	-		-
	Open-Ended Line			-	-		-		-
	Other				-	-	•	-	-
	Pressure Relief Device					-	-		-
	Thief Hatch or Other Vessel Opening		•		-	-	-		-
	Valve	1	1/2/2018	·	•		-	•	-
	Compressor				-		-	-	<u></u> -
	Connector	-		-	-		-	•	
	Covers and Closed Vent Systems			-	-	•	-	·	•
	Flange	-		-				<u>-</u>	
	Instrument	-			-		-	·	
4/7/2018	Meter	-	•	-	•		-		_ -
7,7,2010	Open-Ended Line				-	-	-		-
[Other			-	-	•	-		
ł	Pressure Relief Device	-	-	-	-	-	•	•	-
	Thief Hatch or Other Vessel Opening	-	-		-	•	-	-	-
	Valve	1	-		1	1	Requires a well shutdown or well shut- in	-	-

Location: H Pad Latitude (NAD83): 70.29891 Longitude (NAD83): -148.84628

	Table 1. Monitoring Survey Details ¹													
		Su	rvey			Tech	nician	Monitoring Instrument						
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)		Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/9/2017	9:26:00 AM	10:35:00 AM	45	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044				
9/16/2017	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Monitoring survey times, technician,			
11/12/2017	9:45:00 AM	4:00:00 PM	22	Snow	18	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	1	Scanned full pad, well houses and skids. Waited for lower wind speeds to do outside piping.		
11/13/2017	8:30:00 AM	3:00:00 AM	62	Overcast	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	monitoring survey, and four items on	Skids 59 & 54		
4/19/2018	9:06:00 AM	10:48:00 AM	82	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	delay of repair were not repaired			
4/21/2018	3:32:00 PM	3:38:00 PM	58	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	during the next planned well			
4/22/2018	10:25:00 AM	11:50:00 AM	68	Clear	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	shutdown.			
6/26/2018	9:40:00 AM	10:00:00 AM	63	Fog	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242				

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-			-	-	-	-
1	Connector			· · · · · · · · · · · · · · · · · · ·				-	-
1	Covers and Closed Vent Systems		-	-			•	-	-
	Flange		6/24/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	1	-
	Instrument		•			•	-	-	-
before 8/2/2017	Meter		-	-	-	-	•	-	-
	Open-Ended Line		-	-	-	-	-	-	-
	Other		-	-	•	-	-	-	-
	Pressure Relief Device		-	-	-	•	-	-	-
	Thief Hatch or Other Vessel Opening			-	-	-	-		-
	Valve		5/26/2018 6/24/2018	Handheld OGI	3	-	Requires a well shutdown or well shut- in	3	-
	Compressor	-	-	-	-	-	٠	-	•
	Connector	-	-	-	-	-			-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	•
	Flange	-	-	-	-	-	-	-	•
	Instrument	-	-	-		-	-	-	-
9/9/2017	Meter	-	-	-	-	-	-	-	-
	Open-Ended Line	-	-	•		•	-	<u>-</u>	-
	Other	-	-	-	•	•	-	•	-
	Pressure Relief Device	-	-	<u>-</u>			-	-	•
	Thief Hatch or Other Vessel Opening	-	-	-		•	-	-	-
	Valve	-	-	-		-	•	-	•
	Compressor	-	-	•	•	•	-		-
	Connector	-	-	-		•	-	•	
	Covers and Closed Vent Systems	-	-	-	-	-	-		•
	Flange	-	<u> </u>			-	-		-
i	Instrument		-		-	-	-	•	
9/16/2017	Meter	-	-	-			-	-	-
3,10,201,	Open-Ended Line	-	-	-	-		-	-	-
l	Other	-	-	-	•	•	-	-	-
	Pressure Relief Device	-			•	•	-	-	-
]	Thief Hatch or Other Vessel Opening	-	-	-	-	•	-	-	-
	Valve	1	3/17/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	-	-

				Table 2.	Monitoring Survey				
							of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	•		-	•	•	-
	Connector	-	-	-	<u> </u>		•	-	-
<u> </u>	Covers and Closed Vent Systems		-		·		<u> </u>	•	<u> </u>
l	Flange	<u> </u>	·		-	•		-	•
l	Instrument	<u> </u>	•	·		-	-	•	-
11/12/2017	Meter		-	-	-	<u> </u>	-	-	
-	Open-Ended Line	-	-	-			-		
	Other Pressure Relief Device	-	-	-				-	-
 	Thief Hatch or Other Vessel Opening	 					-	-	
	Valve	 						<u> </u>	<u> </u>
1	Compressor	-				-			-
' h	Connector	-			-	-	· · · · · · · · · · · · · · · · · · ·		
	Covers and Closed Vent Systems	-	-			-	-	-	-
	Flange					-	-		-
l 1	Instrument			-	-	-	•	-	-
11/13/2017	Meter	-	•	-	-	•	•	-	•
[Open-Ended Line	-		-	-		·	•	•
	Other	-			-		-	-	-
1	Pressure Relief Device	-	-		•	-		•	- · · · · · · · · · · · · · · · · · · ·
l	Thief Hatch or Other Vessel Opening			•	· ·		·	•	<u>-</u>
	Valve	<u> </u>	-	-	-		-	-	•
l L	Compressor	<u> </u>			·	-	-	-	•
l	Connector	-	-	<u> </u>	-	-	-	-	-
l -	Covers and Closed Vent Systems	ļ	-	-	-		-		-
	Flange Instrument		-	<u>:</u>	-	-		-	
4/19/2018	Meter	<u> </u>	-						
4/13/2010	Open-Ended Line		-	-	-	-	<u>-</u>		
l	Other	-	-	-		-	-	-	
l	Pressure Relief Device		-				-	-	
	Thief Hatch or Other Vessel Opening	-	-	-	-		-	-	
Ī	Valve	1	4/21/2018	Handheld OGI		•		-	-
	Compressor	-	•	•	•	•		•	
	Connector	L			-		-	-	-
	Covers and Closed Vent Systems	-	-				-		-
L	Flange		<u> </u>		-	<u> </u>			·
	Instrument		-				•	-	•
4/21/2018	Meter	-	-	•			-	-	·
-	Open-Ended Line Other	-		•	•		<u> </u>	•	-
	Pressure Relief Device		-	-	-		-	-	<u>.</u>
 	Thief Hatch or Other Vessel Opening		-		-			-	
	Valve	1	6/24/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	
	Compressor	-	-		-		-	-	-
	Connector	-	-		-		-	-	
	Covers and Closed Vent Systems	-	-			-	-		-
	Flange		-	-	•		-	-	-
	Instrument	•	-		-	-	-	•	-
4/22/2018	Meter		-	-	-	-			
<u>L</u>	Open-Ended Line	<u> </u>	-		<u> </u>	-	-	-	-
ļ Ļ	Other		-	•	-		-		-
	Pressure Relief Device	-	-	-	•		•	-	·
[Thief Hatch or Other Vessel Opening		-	-	-	<u> </u>	-	-	•
	Valve		-	-	·		•		<u> </u>

				Table 2.	Monitoring Survey	Results				
				1		On Delay	of Repair			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor		-	-	•			•		
	Connector	-		-	•	٠	-	•	-	
	Covers and Closed Vent Systems	-		-			-	-	-	
	Flange			•		•	-	-	-	
	Instrument	-		-		•	-		-	
6/26/2018	Meter	-		-		•	-	-	-	
	Open-Ended Line		-	-	-			-	-	
	Other		-	-	-	•	-	•	-	
	Pressure Relief Device	-	-	-	-		-	-		
	Thief Hatch or Other Vessel Opening	-	-	-			-		-	
	Valve				•	-	-	-	•	

Location:	J Pad	Latitude (NAD83):	70,32636	Longitude (NAD83):	-148.84251
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	Table 1. Monitoring Survey Details ¹												
Date	(°F) Speed (mph)						Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
9/19/2017	8:45:00 AM	12:32:00 PM	35	Rain	9	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044		Outside piping and wells	
9/20/2017	2:00:00 PM	3:53:00 PM	73	Overcast	73	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	None	Inside Skids	
1/4/2018	7:43:00 AM	9:06:00 AM	11	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237] None		
6/4/2018	12:00:00 AM	1:00:00 PM	31	Overcast	8	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242			

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-	-	-	-	-
] [Connector	-	L	-	-		-	•	•
ł [Covers and Closed Vent Systems		•	-			-		-
	Flange	-	-	-	<u> </u>		<u> </u>	·	-
ļ .	Instrument	-	-	-	-	-			-
9/19/2017	Meter	-	<u> </u>	-	<u> </u>	<u> </u>	-	-	-
] 3,13,101,	Open-Ended Line			-	-	-	-		<u> </u>
	Other	<u> </u>				-	-	·	
	Pressure Relief Device	-		·	·	-			
	Thief Hatch or Other Vessel Opening	-		-	-	-	<u> </u>		
	Valve	1	5/12/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	•
	Compressor		-	-	-		-		-
	Connector		-	-		-	-	-	-
	Covers and Closed Vent Systems				-	-	-	<u> </u>	-
1 .	Flange	<u> </u>					-	•	-
l .	Instrument	<u> </u>	-		-	·	-	•	<u>-</u>
9/20/2017	Meter	<u> </u>	<u> </u>	-	-	-	-	-	-
3,20,201,	Open-Ended Line		-	-	-	·	•	· · · · · · · · · · · · · · · · · · ·	-
l .	Other	·		-	-	·	•		•
1 .	Pressure Relief Device	<u> </u>	-	<u> </u>			•		
! L	Thief Hatch or Other Vessel Opening	-	-	-	-		-	-	•
	Valve	2	9/20/2017 7/20/2018	Bubble Check	1	-	Requires a well shutdown or well shut- in	-	•
	Compressor	-	•	•		-	-	-	-
[Connector	-	-	-		<u> </u>	-		-
] [Covers and Closed Vent Systems		-		-		-	-	
I [Flange					•	-		-
ļ [Instrument	-	•				•	·	-
1/4/2018	Meter			•	-	•	-	•	-
j į	Open-Ended Line	<u> </u>	-	-	-	-	-	·	
l L	Other	•				-	•	-	-
ı l	Pressure Relief Device	•	-				•	-	-
	Thief Hatch or Other Vessel Opening	·	•		-	-	-		-
	Valve	<u> </u>	-		-	<u> </u>	-	<u>-</u>	•

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor				-	-	•	· ·	-
	Connector			-	-		•	•	-
	Covers and Closed Vent Systems	-	•			•	•	•	-
	Flange	-	-	-	-	-	•	•	-
	Instrument		-	-	-	-	-	-	-
6/4/2018	Meter	-	-	-	-	•	=	•	•
	Open-Ended Line	-		-	-	•	-	-	-
	Other	-	-		-	-	•	-	-
	Pressure Relief Device		-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-		-	-	-	-	-	-
	Valve				•	-			-

Latitude (NAD83): 70.33874 Longitude (NAD83): -148.61242 Location: K Pad

	Table 1. Monitoring Survey Details ¹												
		Su	rvey			Tecl	hnician	N	lonitoring Instrume	nt			
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
8/3/2017	8:05:00 AM	10:15:00 AM	50	Overcast	5	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401284	Monitoring survey times, weather conditions, instrument details, daily		
9/29/2017	8:29:00 AM	10:00:00 AM	33	Overcast	11	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	verification video, and a well site		
2/9/2018	Unknown	Unknown	Unknown	Unknown	Unknown	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	Unknown	Unknown	monitoring survey.	-	

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results	- · · · · · · · · · · · · · · · · · · ·		
						On Delay	of Repair		T
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficuit/ Unsafe Components Monitored
	Compressor	<u> </u>	-	-	-	-	•	-	·
	Connector	-	-		•		•	·	-
	Covers and Closed Vent Systems		-		•	•	-	-	•
l	Flange	-	-		-		-	-	•
	Instrument		-		-		•	-	•
8/3/2017	Meter	-	-			-	-	•	
	Open-Ended Line				-	•	•	•	
	Other	-	-	•	•	-	-	-	-
	Pressure Relief Device	-	-	-			-	•	•
	Thief Hatch or Other Vessel Opening	-	-	-	-				-
	Valve				-	-		•	-
	Compressor	-	-	-	-	•		•	-
	Connector				-	•	-	•	<u> </u>
	Covers and Closed Vent Systems	-	-		-	-	•		-
	Flange		-	-	-	-	-	•	<u>-</u>
	Instrument				•	-	•	•	-
9/29/2017	Meter		•		-	-	-	•	-
	Open-Ended Line			•		-	•		
	Other			•	•	-	•	•	-
	Pressure Relief Device	-	-	-	-		-	•	-
	Thief Hatch or Other Vessel Opening	-		-			-	-	•
	Valve	-	-	-		-	-	•	-
	Compressor		-		•		-	•	-
	Connector	-					-	-	-
	Covers and Closed Vent Systems						-	-	·
	Flange	-			-	-	-	-	•
	Instrument						-		-
2/9/2018	Meter						-	-	-
	Open-Ended Line	-	-	-	•		•	•	-
	Other	•	-				-	-	-
l	Pressure Relief Device		-					-	-
	Thief Hatch or Other Vessel Opening	-	-	-			-	-	-
	Valve		-				-	-	-

K Pad

 Location:
 L Pad
 Latitude (NAD83):
 70.35026
 Longitude (NAD83):
 -149.32881

	Table 1. Monitoring Survey Details ¹													
		Sui	rvey			Tech	nician	N	lonitoring Instrume	nt				
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/9/2017	11:42:00 AM	1:50:00 PM	40	Overcast	2	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44401573				
9/18/2017	11:25:00 AM	1:15:00 PM	38	Overcast	2	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The resurvey of 13 items occurred			
10/30/2017	1:58:00 PM	3:00:00 PM	37	Overcast	0	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573	more than 30 days after the repair.			
1/5/2018	9:31:00 AM	10:10:00 AM	7	Overcast	5	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	and 24 items on delay of repair were			
6/2/2018	10:00:00 AM	1:20:00 PM	30	Overcast	1	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	not repaired during the next planned	Well houses		
6/2/2018	9:58:00 AM	1:35:00 PM	30	Overcast	3	F. Woldstad	IR Lvl 1/OGI (4)	Handheld OGI	FLIR GFX-320	74900236	well shutdown.	Well houses		
6/24/2018	1:17:00 PM	3:47:00 PM	57	Partly Cloudy	1.5	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	wen shatubwii.			
6/23/2018	10:03:00 AM	4:43:00 PM	50	Partly Cloudy	2.5	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242				

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		of Repair		l					
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-	-	-	-	•
	Connector		9/26/2018 12/18/2017 5/12/2018 5/23/2018	Handheld OGI	10	-	Requires a well shutdown or well shut- in	10	-
	Covers and Closed Vent Systems		-		-	-	-	·	-
	Flange		5/12/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	-
1 [Instrument		-	-		-	•	-	•
	Meter			•		-		-	-
before 8/2/2017	Open-Ended Line						-		-
Deloie 6/2/201/	Other		•		•		-		-
	Pressure Relief Device		•	-			-		-
	Thief Hatch or Other Vessel Opening		-	-	-		-	-	•
	Valve		8/4/2017 8/21/2017 8/23/2017 3/19/2018 5/12/2018 5/16/2018 5/21/2018 7/24/2018	Handheld OGI Bubble Check	21	-	Requires a well shutdown or well shut- in	13	
	Compressor		•	-	-		-		-
	Connector				-		-	-	-
1	Covers and Closed Vent Systems				-		-	-	-
1	Flange	-	-		•	•	-	•	-
1	Instrument	-	•	-	-	-	•		
9/9/2017	Meter	-	-	-	-	-	•		<u> </u>
3,3,202.	Open-Ended Line	-	-	-		-	-	·	
1	Other	-	-	-	-	-		•	
1 .	Pressure Relief Device	-	-		•	-			<u> </u>
	Thief Hatch or Other Vessel Opening	-	•			•	-	<u> </u>	
	Valve	1	5/12/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	•	-

				Table 2.	Monitoring Survey	Results			
		1				On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-	-		-		•
	Connector	-	-	-	-		-		•
	Covers and Closed Vent Systems		-	-	-	•	-	•	•
	Flange	-	-	-	-		•		-
	Instrument	-	-	-	-		-	-	•
9/18/2017	Meter	-	-	-	-		-	-	•
L	Open-Ended Line	·	<u>.</u>	·	-	-	<u> </u>	•	•
	Other	<u> </u>		-		-	<u> </u>	•	-
L	Pressure Relief Device	<u> </u>			-	-		•	•
<u> </u>	Thief Hatch or Other Vessel Opening			-			<u> </u>	•	•
	Valve	<u> </u>	-	·		-	-	<u> </u>	<u> </u>
_ L	Compressor	ļ	· · · · · · · · · · · · · · · · · · ·	-	-	-	<u>-</u>	•	•
<u>L</u>	Connector	<u> </u>	•	•	-	-	-	•	<u> </u>
_	Covers and Closed Vent Systems	ļ	<u> </u>	·	·			•	-
ļ_	Flange	ļ <u>.</u>	<u> </u>				-	•	-
L	Instrument	ļ <u>-</u>	<u> </u>	<u>-</u>		<u> </u>	· ·	•	·
10/30/2017	Meter	-	•	-			-	•	•
<u> </u>	Open-Ended Line	<u> </u>	•	•			-	•	-
l -	Other		•				-	•	-
l –	Pressure Relief Device	ļ		•	•	-	-	<u> </u>	
<u> </u>	Thief Hatch or Other Vessel Opening	ļ <u>.</u>	ļ <u>-</u>				*		
	Valve	ļ ·	•	-			•		- .
-	Compressor		•	•	٠	-	<u> </u>	<u> </u>	
<u> </u>	Connector	-	-	-	•		- ,		
-	Covers and Closed Vent Systems	-	<u> </u>	- :	•		•	<u> </u>	<u> </u>
<u> </u>	Flange	· · · · · · · · · · · · · · · · · · ·	•		٠	<u> </u>	• .		· · · · · · · · · · · · · · · · · · ·
1/5/2018	Instrument Meter	-	-	-	-			<u>.</u>	-
1/3/2016	Open-Ended Line		-	-					
	Other	-	-				•		
l +	Pressure Relief Device	 			<u>-</u>		•		
 	Thief Hatch or Other Vessel Opening	 	 				-		
-	Valve	 					-	<u> </u>	
-	Compressor	 		-	-	-			
	Connector	8	6/9/2018 6/14/2018 6/17/2018 6/18/2018	Handheld OGI	-	-	-	-	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
l	Flange			•	-		•	-	-
6/2/2018 -	Instrument	-	-	•	•	-	-	-	-
ı F	Meter	-	-	-	-	-	-	•	·
	Open-Ended Line	· ·		•		-	-	-	-
	Other	-	-	-	-			-	<u>-</u>
F	Pressure Relief Device	•		•	•	-	•	•	-
	Thief Hatch or Other Vessel Opening						-	-	
	Valve	1	6/17/2018	Handheld OGI	-	-	-	-	-

				Table 2.	Monitoring Survey	Results			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	•		-	-	-	•	
	Connector	3	6/25/2018 7/22/2018 7/24/2018	Bubble Check	2	-	Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	<u> </u>		-	-	-	<u>-</u>		-
	Flange	1		-	1	1	Requires a well shutdown or well shut-	<u> </u>	•
	Instrument	•	•	-	-	-	•	-	•
6/23/2018	Meter	•	-			-	•	-	•
0/23/2010	Open-Ended Line		•	<u> </u>	-	-	-	•	<u> </u>
	Other	-	-	<u> </u>	-	-	-	•	-
	Pressure Relief Device	•	-		-		-	•	•
	Thief Hatch or Other Vessel Opening	-	-				-	•	-
	Valve	6	6/23/2018 6/24/2018 7/11/2018 7/13/2018	Handheld OGI Bubble Check	-	-	-		-
	Compressor		•			-			•
	Connector	3	7/23/2018 7/24/2018	Bubble Check	3		Requires a well shutdown or well shut- in	-	-
	Covers and Closed Vent Systems	-	-	-			-	-	-
	Flange	-	-			-	-		-
6/24/2010	Instrument	-	-	-		-		<u>-</u>	-
6/24/2018	Meter	-	•		-	•	-		
	Open-Ended Line			-	-		-	-	-
	Other			-	-		•	=	-
	Pressure Relief Device		•				•	-	-
	Thief Hatch or Other Vessel Opening	-	-		-	-		-	-
	Valve	-	-		-	-	-	-	•

 Location:
 M Pad
 Latitude (NAD83):
 70.3360
 Longitude (NAD83):
 -148.96276

	Table 1. Monitoring Survey Details 1												
		Su	rvey			Technician		Monitoring Instrument					
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
8/17/2017	11:00:00 AM	3:35:00 PM	73	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GF-320	44400882		Requested scan of skid 59	
9/7/2017	9:18:00 AM	12:20:00 PM	41	Overcast	0	C. Carter	IR Lvi 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of 16 items occurred more than 30 days after the repair,		
1/2/2018	8:28:00 AM	9:42:00 AM	68	Clear	0	B. King	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	dates of attempted repair, repair notes, and repair dates for three		
4/20/2018	10:30:00 AM	4:28:00 PM	2	Clear	3	T. Peria	IR Lvi 1/OGI (3)	Handheld OG	FLIR GFX-320	74900242	items were not recorded, two items on delay of repair were not repaired	Outside piping and wells	
4/21/2018	10:10:00 AM	4:30:00 PM	70	Clear	0	T. Peria	IR Lvi 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	during two planned well shutdowns, and nine items on delay of repair		
5/12/2018	1:40:00 PM	3:00:00 PM	33	Overcast	7	J. Kazense	IR Lvi 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	were not repaired during the next planned well shutdown.		
5/20/2018	10:10:00 AM	4:10:00 PM	67	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242			

¹ in accordance with 40 CFR 60.5397a[g](1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

Table 2. Monitoring Survey Results									
Survey Date	Component	Detected	s Successful Repair Date(s)	Resurvey Instrument Type	On Delay of Repair				
					During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
before 8/2/2017	Compressor		-	-	-	-	-	-	-
	Connector		8/29/2017 4/21/2018	Handheld OGI	2	•	Requires a well shutdown or well shut- in	1	
	Covers and Closed Vent Systems			-		•	-	-	-
	Flange		-	-	•		-	<u>-</u>	-
	Instrument		-	-	-	-			•
	Meter		•	•	-		-	•	-
	Open-Ended Line		-	-	-		•	-	-
	Other		-	-	-		•	•	
	Pressure Relief Device		-	-	-		-		-
	Thief Hatch or Other Vessel Opening			-	-	•	-	-	•
	Valve		8/22/107 8/26/2017 8/28/2017 8/30/2017 7/21/2018	Handheld OGI Bubble Check	10		Requires a well shutdown or well shut- in	1	-

				Table 2.	Monitoring Survey	Results			
							of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-			-		-	•	•
	Connector	1	Unknown	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	
	Covers and Closed Vent Systems	-	•	-	-	•	-	-	-
	Flange	· ·		-	-	•	-	-	-
	Instrument	4	8/22/2017 8/26/2017 8/27/2017	Handheld OGI		-	-	-	
8/17/2017	Meter		-	-	-		-		-
	Open-Ended Line		•	-	-	•	-		<u> </u>
	Other	-	-	-	-		-		<u> </u>
	Pressure Relief Device	-	-	•	-			<u> </u>	
Γ	Thief Hatch or Other Vessel Opening	-	-			•	-	<u> </u>	<u> </u>
	Valve	6	Unknown 8/28/2017 8/31/2017 7/21/2018	Handheld OGI Bubble Check	4	-	Requires a well shutdown or well shut- in	3	-
	Compressor	-	-			•	-		
	Connector	1	9/7/2017	-	-	•	•		<u> </u>
	Covers and Closed Vent Systems	-	-	-	-	-	-	·	-
	Flange	-	-	-	-	-		-	·
	Instrument		·		-	-	-	<u>.</u>	
9/7/2017	Meter	-	-	-	-	-	-		
Γ	Open-Ended Line	-	-	-	-	•	-	·	-
	Other	-	-	-	-	-	•	<u> </u>	•
ļ .	Pressure Relief Device		•		-		•	•	-
	Thief Hatch or Other Vessel Opening	•	-	•	•	-	-	<u>-</u>	
Ī	Valve	-		-	-			<u></u>	
	Compressor	-	-		•	-	-	•	-
Ī	Connector	-		-	-	-		<u> </u>	•
	Covers and Closed Vent Systems	-	-		-	-	•	<u> </u>	·
	Flange	-	-	-	-		-		<u>-</u>
	Instrument	-	-		-	•	-	·	<u> </u>
1/2/2018	Meter	-	-	-	-	•	-	•	<u> </u>
	Open-Ended Line	-	-					•	
	Other	-	-	-	-		-		•
	Pressure Relief Device				-				
	Thief Hatch or Other Vessel Opening		•	-	-		-	<u> </u>	-
	Valve				-		-		<u> </u>
	Compressor	-	-		-	•		<u> </u>	·
	Connector	5	4/20/2018 4/21/2018 4/25/2018 5/12/2018	Handheld OGI	-	-			
j	Covers and Closed Vent Systems	<u> </u>	-		-	-	-		
1 .// F	Flange	-	-	-	-		-		
4/20/2018	Instrument		-	-	-	-	-		
	Meter		-	-	-		-		
F	Open-Ended Line	-	-	-	-	-		-	
	Other	-	-	-					
	Pressure Relief Device		-				-	•	
	Thief Hatch or Other Vessel Opening		-	-		-	-	-	•
	Valve	1	4/20/2018	-		-	-	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart 0000a Greater Prudhoe Bay, Alaska

 Location:
 N Pad
 Latitude (NAD83):
 70.32021
 Longitude (NAD83):
 -148.91336

	Table 1₁ Monitoring Survey Details 1													
		Su	rvey			Technician			onitoring Instrume	nt				
Date	Begin Time	e End Time Ambient Temp (°F) Sky Conditions Maximum Wind Speed (mph) Name Training & Experience (Years) Type Make/Model Serial Number						Deviations From Monitoring Plan	Comments					
9/8/2017	9:50:00 AM	11:02:00 AM	37	Overcast	8	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044				
1/3/2018	9:59:00 AM	11:11:00 AM	71	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	12 items on delay of repair were not			
2/11/2018	3:00:00 PM	11:30:00 AM	14	Clear	6	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	repaired during the next planned	Inside skids and well houses		
4/21/2018	1:05:00 PM	3:25:00 PM	59	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	well shutdown.			
4/25/2018	2:47:00 PM	4:45:00 PM	68	Clear	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242				

in accordance with 40 CFR 60.5397a[g](1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2	Monitoring Survey	Results			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	· · · · · · · · · · · · · · · · · · ·	of Repair Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•			-	-		•
	Connector		5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	-
	Covers and Closed Vent Systems			-	-	-	•	-	-
	Flange		•	-	-	-	-		-
	Instrument		-	-	-		-	•	-
before 8/2/2017	Meter		4/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	-
	Open-Ended Line		•	-	-	-	•	•	-
	Other				-	•	•	•	-
	Pressure Relief Device		-	<u> </u>		•	-	•	<u>-</u>
	Thief Hatch or Other Vessel Opening		-			•	-	.	-
	Valve		3/30/2018 4/21/2108 5/25/2018	Handheld OGI	10	-	Requires a well shutdown or well shut- in	10	-
	Compressor	-				•	-	•	-
	Connector	-					-		-
	Covers and Closed Vent Systems	-	•		-	-	<u>-</u>	-	-
	Flange	-	-	-	•		<u>-</u>	•	-
	Instrument	-	-	-	-	<u> </u>			-
9/8/2017	Meter	-	-	-	-		·	<u> </u>	
	Open-Ended Line	-	-	-	-	•			
	Other	-	-	-	-	-	-	<u>-</u>	<u> </u>
	Pressure Relief Device	-		-	-	-	-	<u> </u>	<u> </u>
	Thief Hatch or Other Vessel Opening	<u> </u>	· · · · · ·		-	•	· · · · · · · · · · · · · · · · · · ·	<u> </u>	-
	Valve	-	-	-	-	•	-	•	<u> </u>
	Compressor		-	-		-	·	<u> </u>	<u> </u>
	Connector	<u> </u>		-	· · · · · · · · · · · · · · · · · · ·	-	·	<u> </u>	<u>-</u>
	Covers and Closed Vent Systems	-	<u> </u>	-	-	-		<u> </u>	
	Flange	<u> </u>	•	•			<u> </u>	-	<u> </u>
	Instrument		· · · · · · · · · · · · · · · · · · ·	<u> </u>		-		•	-
1/3/2018	Meter	-	•	-	-		-	-	•
	Open-Ended Line	<u> </u>	<u>-</u>		<u> </u>	<u> </u>	-		
	Other	<u> </u>			<u> </u>	<u> </u>	•	-	
	Pressure Relief Device	<u> </u>	<u> </u>		<u> </u>		•	•	<u> </u>
1	Thief Hatch or Other Vessel Opening	<u> </u>	<u> </u>			-	-	-	<u>-</u>
1	Valve	-	-	-	-			•	

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-	-	-			
	Connector	1	5/25/2018	Handheld OGI	1	÷	Requires a well shutdown or well shut- in	-	•
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-
	Flange	-	-		•	-		-	-
	Instrument	-	-	-			-	-	-
2/11/2018	Meter	•		-	-	-	-	•	-
2/11/2016	Open-Ended Line	-			-	-	-		-
	Other	-	•			-	-	-	-
	Pressure Relief Device					-	-	-	•
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	•	-
	Valve	3	2/13/2018 2/15/2018 5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	•	-
	Compressor		•			-	-	•	-
	Connector	•		•	-	•	-	•	-
	Covers and Closed Vent Systems	-	-	-	-	-	-	•	-
	Flange	•			•		-	-	-
	Instrument		•		•	•		-	-
4/21/2018	Meter	-	-	•	•	•	•	•	-
4/21/2018	Open-Ended Line	•		•		-	-	<u>-</u>	-
Γ	Other	-	-	•	•	-	-	-	-
	Pressure Relief Device	-	-	•		-	-	-	•
Ī	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
Ī	Valve	1	5/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	-
	Compressor		•	-	-	-	-	•	-
Ī	Connector	-	-	-	-	-	•	-	
Ţ	Covers and Closed Vent Systems	-	-	-	-	-		-	-
Ī	Flange	-	-	-	-	-	-	-	•
·	Instrument	-	-	-	-	-		•	
4/35/3010	Meter	-	-	•	-	-	-		-
4/25/2018	Open-Ended Line	-	•	•	•	-	-	=	-
	Other		-		-	-	-	-	-
	Pressure Relief Device		-		-	-	-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-
	Valve	3	4/25/2018 5/25/2018	Handheld OGI	2	-	Requires a well shutdown or well shut- in	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa Greater Prudhoe Bay, Alaska

 Location:
 R Pad
 Latitude (NAD83):
 70.34554
 Longitude (NAD83):
 -148.90426

	Table 1. Monitoring Survey Details ¹													
		Sui	vey			Tech	ınician	N	ionitoring instrume	ent				
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/8/2017	11:33:00 AM	1:15:00 PM	49	Overcast	9	C. Carter	IR Lvi 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044				
1/4/2018	7:55:00 AM	11:10:00 AM	68	Overcast	2	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	The resurvey of 11 items occurred more than 30 days after the repair,			
1/26/2018	2:10:00 PM	2:40:00 PM	70	Overcast	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	one item on delay of repair was not repaired during the next planned well shutdown, and 15 items on	OGI support scanning inside skid 86 only		
3/29/2018	7:58:00 AM	1:36:00 PM	-7	Clear	9	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	dolay of consistance not consisted	Outside piping and well houses		
3/30/2018	7:41:00 AM	1:13:00 PM	68	Overcast	0	B. King	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236				

¹ In accordance with 40 CFR 60.5397a[g][1], fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results		· · · · · · · · · · · · · · · · · · ·	
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	•		-	-	•	
	Connector		9/20/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	-
	Covers and Closed Vent Systems		•			-	-	 -	-
	Flange		-	-	-	-	-	-	
	Instrument		8/17/2017	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	•
	Meter		8/29/2017 5/26/2018	Handheld OGI	5	-	Requires a well shutdown or well shut- in	2	-
i	Open-Ended Line			-	-	-	•	<u>-</u>	-
before 8/2/2017	Other			-		-	•	-	-
	Pressure Relief Device			-	-	-	-		-
	Thief Hatch or Other Vessel Opening			-	-		-	-	-
	Valve		8/28/2017 9/15/2017 11/23/2017 1/24/2018 5/4/2018 5/26/2018 6/20/2018 7/24/2018 7/26/2018	Handheld OGI Bubble Check	16	3	Requires a well shutdown or well shut- in	12	-

				Table 2.	Monitoring Survey	Results		· · · · · · · · · · · · · · · · · · ·	
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	•	•	•	-	-	-	<u> </u>	•
	Connector		•		-		·	<u> </u>	-
	Covers and Closed Vent Systems	-			-		·		•
	Flange	ļ <u>.</u>	-	-	<u>-</u>	-	•	<u> </u>	<u> </u>
	Instrument	<u> </u>	<u> </u>	· · · · · ·	· · · · · · · · · · · · · · · · · · ·	<u> </u>	-		
	Meter	<u> </u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·	-	<u> </u>	-	•	•
9/8/2017	Open-Ended Line	-	-		•			·	
	Other	· ·	<u> </u>	•				<u> </u>	•
	Pressure Relief Device	-	-	-	-	•	•	<u> </u>	-
	Thief Hatch or Other Vessel Opening	-	-	-	•	-	-	<u> </u>	•
	Valve	1	10/11/2017	Handheld OGI	1	•	Requires a well shutdown or well shut- In	1	-
	Compressor		•		-		•	-	-
	Connector	•	•		-		•	-	-
	Covers and Closed Vent Systems	-	•		-	-	-	<u> </u>	<u>-</u>
	Flange	-	-		•		-	-	<u> </u>
	Instrument	<u> </u>	<u> </u>		-	-	<u> </u>	<u> </u>	·
1/4/2018	Meter	2	5/26/2018	Handheld OGI	2		Requires a well shutdown or well shut- in	<u> </u>	-
	Open-Ended Line	-	-	<u> </u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·		·	<u> </u>
	Other	-					-	<u> </u>	
	Pressure Relief Device	<u> </u>	-		•	•	-	•	•
	Thief Hatch or Other Vessel Opening	-			-	<u> </u>	-	-	•
	Valve	2	1/24/2018 7/25/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut- in	-	-
	Compressor		•		-		-	-	-
l l	Connector	-	-	•	-	•	-	<u> </u>	-
	Covers and Closed Vent Systems	<u>-</u>	-	-	-	<u> </u>		<u> </u>	·
	Flange		· -		-	·	-	-	·
	Instrument	-	•		-	<u> </u>	-	<u> </u>	·
1/26/2018	Meter	-	-		<u> </u>	<u>-</u>	-	<u> </u>	•
1,20,2010	Open-Ended Line	•	•	<u> </u>	-		•	-	•
	Other Pressure Relief Device	-	-		-		· -	·	· .
}	Thief Hatch or Other Vessel Opening	-	-	-				· · · · · · · · · · · · · · · · · · ·	· · ·
	Valve	2	3/31/2018 5/14/2018	Handheld OGI	2	-	Requires a well shutdown or well shut- in	<u> </u>	-
	Compressor	 	-	-	-	-	-	-	-
	Connector	3	3/29/2018 3/31/2018	Handheld OGI		-	-	-	-
	Covers and Closed Vent Systems	-	- 3/31/2016	-	-	-		-	<u> </u>
	Flange	 			-	-	-	-	
l	Instrument			-	-	-	-	-	-
3/29/2018	Meter					-		-	<u>-</u>
l Ì	Open-Ended Line	-	-			-	-	-	-
l Ì	Other	-	-	-	•	•	-	-	-
l t	Pressure Relief Device	-		-		-		-	-
	Thief Hatch or Other Vessel Opening	-	-	-		-	-		
	Valve	1	3/31/2018	Handheld OGI	-	-	-	-	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-	-	-		-	-	-	
	Connector	2	3/30/3018 5/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	
	Covers and Closed Vent Systems	-	-		-	-	-	•	-
!	Flange				-	-	-	-	-
	Instrument				•	•	-	-	•
3/30/2018	Meter	1	7/24/2018	Bubble Check	1	•	Requires a well shutdown or well shut- in	-	-
	Open-Ended Line	-	-	-	-		-	-	-
	Other	-	-	-	-	-	-	-	-
	Pressure Relief Device							-	
	Thief Hatch or Other Vessel Opening	-		-		-	-	· · · · · · · · · · · · · · · · · · ·	-
	Valve	1	7/25/2018	Bubble Check	1	-	Requires a well shutdown or well shut- in	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa Greater Prudhoe Bay, Alaska

Location: 5 Pad Latitude (NAD83): 70.35495 Longitude (NAD83): -149.03728

	Table 1. Monitoring Survey Details 1													
	Survey						nician	Monitoring Instrument						
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/23/2017	9:28:00 AM	10:45:00 AM	36	Overcast	8	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573				
5/4/2018	9:05:00 AM	9:12:00 AM	7	Overcast	7	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242	The resurvey of two items occurred			
5/23/2018	9:21:00 AM	4:40:00 PM	34	Overcast	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	more than 30 days after the repair,			
6/8/2018	9:15:00 AM	4:15:00 PM	29.8	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	and 22 items on the delay of repair	Inside		
6/9/2018	8:30:00 AM	10:30:00 AM	30	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	list were not repaired during the next	Inside		
6/10/2018	8:30:00 AM	3:30:00 PM	62.1	Overcast	0	W. Bjornson	IR Lvl 1/OGI (2)	Handheld OGI	FLIR GFX-320	74900237	planed well shutdown.	Inside		
6/10/2018	11:15:00 AM	3:38:00 PM	68	Overcast	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	pianed well shutdown.	Inside		
6/25/2018	9:12:00 AM	3:13:00 PM	53	Partly Cloudy	3.6	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242]	Outside piping		

In accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
		T		1			of Repair		l .
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		•	-	-	-	-		-
	Connector		8/12/2017 8/15/2017 3/7/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1	-
	Covers and Closed Vent Systems		•	-	-	-		-	-
	Flange		8/2/2017 5/27/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	1	-
before 8/2/2017	Instrument		-	-	-	•	-	•	•
Derore 8/2/201/	Meter		5/4/2018 6/11/2018	Handheld OGI	3	1	Requires a well shutdown or well shut- in	3	•
	Open-Ended Line			-	-		-		•
	Other		•		•	-	•	•	-
	Pressure Relief Device				-	-		-	-
	Thief Hatch or Other Vessel Opening			-			-	-	•
	Valve		5/26/2018 6/11/2018	Handheld OGI	17	15	Requires a well shutdown or well shut- in	17	-
	Compressor	-	-	-	-		<u>-</u>	•	-
	Connector	-	-	-	-		-		<u>-</u>
	Covers and Closed Vent Systems	<u> </u>		-	-	•	-		-
	Flange			<u> </u>	-	-	-		-
	Instrument				-	<u>-</u>		<u> </u>	-
9/23/2017	Meter	-	-	•	•	•		<u> </u>	-
	Open-Ended Line		•	-		-	-	<u> </u>	
	Other	-		-		-	-		
	Pressure Relief Device	-	-	-	-	•	-	<u> </u>	•
	Thief Hatch or Other Vessel Opening	-			•	•	-	<u> </u>	-
	Valve	1	9/23/2017	-	-		-		<u>-</u>

				Table 2.	Monitoring Survey	Results			
		T		1		On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor			-	-	-	· ·		
	Connector	4	5/8/2018 5/12/2018 7/16/2018	Handheld OGI Bubble Check	1	-	Requires a well shutdown or well shut- in	1	-
	Covers and Closed Vent Systems	-	<u> </u>		-			· · · · · · · · · · · · · · · · · · ·	
	Flange	•		-	-		-	<u> </u>	<u>-</u>
	Instrument		<u> </u>	<u> </u>	•		-	<u> </u>	<u>-</u>
4/21/2018	Meter	<u> </u>		<u> </u>	<u> </u>		-	-	-
	Open-Ended Line	-	-				-	•	·
	Other		<u> </u>	•	-	•	-	·	-
	Pressure Relief Device		<u> </u>	-	•			<u> </u>	<u> </u>
	Thief Hatch or Other Vessel Opening	-		•		-	•		-
	Valve	5	4/22/2018 7/16/2018 7/18/2018	Handheld OGI Bubble Check	3	•	Requires a well shutdown or well shut- in	3	-
	Compressor		•				-	<u> </u>	•
	Connector	-	-	-	-		-	<u>-</u>	•
	Covers and Closed Vent Systems	-	-	-	-		-	•	-
	Flange	_	I	-	-	•	-	•	-
	Instrument				-		-	·	-
5/12/2018	Meter	-	·		-		•	· · · · · · · · · · · · · · · · · · ·	
3,12,2010	Open-Ended Line			•	-		•		
	Other		-		-	-	-		<u> </u>
	Pressure Relief Device		-		•		·		-
	Thief Hatch or Other Vessel Opening		<u> </u>	-	-		•	<u> </u>	<u>-</u>
	Valve	1	7/16/2018	Bubble Check	1	-	Requires a well shutdown or well shut- in	1	-
	Compressor	-		-	<u> </u>	-	-	<u> </u>	•
	Connector	1	5/20/2018	-	-		-	<u> </u>	<u> </u>
	Covers and Closed Vent Systems		I	•	-				<u> </u>
	Flange		<u> </u>		•	-	•	<u> </u>	
	Instrument				•			<u> </u>	-
5/20/2018	Meter				•		-	•	-
	Open-Ended Line		<u> </u>		•		-	-	-
	Other	-		-			-		-
	Pressure Relief Device	-	-	-			-	<u> </u>	-
	Thief Hatch or Other Vessel Opening	-	-	-			-	<u> </u>	-
	Valve	1	5/20/2018	-	-	-	-	-	-

Survey Date						O- 5-1			
			Successful Repair Date(s)			On Delay	of Repair		
Date	Component	Fugitive Emissions Detected		Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor			-	-	-	-	-	-
	Connector		•		-	•	-	-	•
	Covers and Closed Vent Systems			·	•	-	-	•	<u>-</u>
	Flange	<u> </u>					<u> </u>	-	<u> </u>
L	Instrument	<u> </u>	•	-	-	-	-	·	<u> </u>
5/4/2018	Meter	<u> </u>	-	-	•	-		-	·
L	Open-Ended Line	·			-	-		-	<u> </u>
L	Other	-	-	-		-	•	· · · · · · · · · · · · · · · · · · ·	<u> </u>
L	Pressure Relief Device	<u> </u>		-	-		· · · · · · · · · · · · · · · · · · ·	<u> </u>	-
L	Thief Hatch or Other Vessel Opening	-			-		-	<u> </u>	
	Valve	<u> </u>				-	-	<u> </u>	
<u></u>	Compressor	ļ <u>:</u>				·	-		-
ļ_	Connector	11	5/23/20108			-	-	<u></u>	
<u> </u>	Covers and Closed Vent Systems	<u> </u>	•	-	-	-			-
- ⊢	Flange Instrument	 	:		-	-	-	 	
5/23/2018	Meter	 		-	<u> </u>		-		<u> </u>
3/23/2018	Open-Ended Line	 	<u>:</u>	-	-				
-	Other	 		-	-			<u>_</u>	-
—	Pressure Relief Device	-	-	-			-	-	
1	Thief Hatch or Other Vessel Opening	 		-			-	-	-
-	Valve	-		-	-	-	-		•
	Compressor	-	-	-			-	-	-
Ī	Connector	6	6/9/2018	Handheld OGI	2	2	Requires a well shutdown or well shut- in	-	
	Covers and Closed Vent Systems	<u> </u>		-		-	-	-	-
	Flange	1			1	1	Requires a well shutdown or well shut- in	-	-
	Instrument	2	6/9/2018	Handheld OGI	-	-	-		•
6/8/2018	Meter	2	-	-	2	2	Requires a well shutdown or well shut- in	-	-
	Open-Ended Line		-					-	-
	Other	-	-	-	•	-			-
	Pressure Relief Device	-	-		-			-	-
	Thief Hatch or Other Vessel Opening		-	-	-		-	•	
	Valve	3	-	-	3	3	Requires a well shutdown or well shut- in	-	-
	Compressor	·		-	-	-	-	•	-
	Connector	<u> </u>	-		-		-		
	Covers and Closed Vent Systems	-	-	-	-		-		-
L	Flange	<u>.</u>	•	-	-		-	-	-
<u>L</u>	Instrument	<u>.</u>	•		-		-	-	-
6/9/2018	Meter Coop Ended Line	<u> </u>		· · · · · · · · · · · · · · · · · · ·	•		•		
· · ·	Open-Ended Line Other	-	-		•	_ •			
<u> </u>	Pressure Relief Device	 	-		-	-			-
<u> </u>	Thief Hatch or Other Vessel Opening	+			-				·
-	Valve	2	6/9/2018	-	1	1	Requires a well shutdown or well shut- in	<u> </u>	-

				Table 2.	Monitoring Survey	Results			
				·		On Delay	of Repair	· · · · · · · · · · · · · · · · · · ·	
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor	-		-	-	-	·	-	•
	Connector	6	6/11/2018 6/25/2018	Handheld OGI	1	1	Requires a well shutdown or well shut- in	-	·
	Covers and Closed Vent Systems	-	-	-	-		•	-	-
	Flange	-				-	-	-	-
	Instrument	•		-	•	•	-	-	•
6/10/2018	Meter	1			1	1	Requires a well shutdown or well shut-	<u>-</u>	
	Open-Ended Line	-	-	-	-	-		•	-
	Other	-			•		- 1	-	
	Pressure Relief Device	-	-	-	-	-		-	-
	Thief Hatch or Other Vessel Opening	-	-			-	•	-	-
	Valve	6	6/11/2018	Handheld OGI	2	2	Requires a well shutdown or well shut- in	•	-
	Compressor	-	-	-	-			•	
	Connector	1	6/27/2018	Handheld OGI	-	-	-	•	-
	Covers and Closed Vent Systems	-	-	-	•		•	-	
	Flange	•		-	-		•	-	-
	Instrument	-	-	-	-		-		-
6/25/2018	Meter	-	-	-	-	-	•	•	-
0/23/2018	Open-Ended Line	-	-	-	-	-	-		-
	Other				•	-	-	-	-
	Pressure Relief Device			•			-	-	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	•	-	-	-
	Valve	9	6/27/2018	Handheld OGI	6	6	Requires a well shutdown or well shut- in	-	-

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa Greater Prudhoe Bay, Alaska

 Location:
 U Pad
 Latitude (NAD83):
 70.30037
 Longitude (NAD83):
 -148.93122

	Table 1. Monitoring Survey Details ¹												
		Sur	vey			Tecl	nician	N	ionitoring Instrume	nt			
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments	
9/7/2017	12:58:00 PM	1:32:00 PM	47	Overcast	4	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The repair of one item occurred		
1/7/2018	9:00:00 AM	2:30:00 PM	-19	Clear	0	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	more than 30 days after the date of leak discovery, a daily verification	Inside skids and well houses, high winds outside of 21 mph	
2/11/2018	12:00:00 PM	1:00:00 PM	14	Clear	6	H. Denio	IR Lvi 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900237	vídeo and wellsite photo were not		
4/21/2018	10:29:00 AM	12:38:00 PM	60	Clear	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	taken for one monitoring survey, two items on delay of repair were not		
4/22/2018	12:48:00 PM	1:57:00 PM	50	Clear	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	repaired during two planned well shutdowns, and two items on delay		
5/20/2018	9:27:00 AM	10:01:00 AM	65	Overcast	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	of repair were not repaired during		
6/25/2018	9:12:00 AM	3:13:00 PM	53	Partly Cloudy	3.6	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	the next planned well shutdown.		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-		-	-	•	-
Г	Connector		-	·	-		-	-	•
Г	Covers and Closed Vent Systems				-	-	-		-
	Flange		-		-	-			-
	Instrument		-	-	-	-	·	-	-
before 8/2/2017	Meter		5/14/2018 5/20/2018	Handheld OGI	1	•	Requires a well shutdown or well shut- in	2	-
Defore 8/2/2017	Open-Ended Line		-		-	-		-	-
	Other		-		-	-	•	-	-
Г	Pressure Relief Device		-	-	-		-	-	
Γ	Thief Hatch or Other Vessel Opening		÷	-	-			•	-
	Valve		4/7/2018 4/21/2018 7/6/2018	Handheld OGI Bubble Check	3	-	Requires a well shutdown or well shut- in	3	-
	Compressor			-	•		-		-
	Connector			-	-	-	-	•	-
[Covers and Closed Vent Systems	-					-	-	•
	Flange	-		•	-	-		-	-
	Instrument	-			-		•	-	-
9/7/2017	Meter	-			-		-	-	
	Open-Ended Line				•	•	-	-	-
	Other		-	-		-	-		-
	Pressure Relief Device	-	-	-	-	-	-	-	-
	Thief Hatch or Other Vessel Opening		-	-	-		-	-	
Г	Valve		-		-	-	-	-	-

				Table 2.	Monitoring Survey	Results			
						On Delay	of Repair		
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor			-	-	•	•		-
	Connector	2	1/14/2018 4/22/2108	Handheld OGI	1		Requires a well shutdown or well shut- in	•	
	Covers and Closed Vent Systems	-	-	-	•	•	-	-	-
1	Flange	-		-	-	-	-	······································	•
	Instrument	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		-	-	-		-
1/7/2018	Meter	· · ·	-	-	-	-	-	•	
	Open-Ended Line Other	- :		- :- -	-	:-	<u> </u>		<u> </u>
	Pressure Relief Device	-	-	-	-		-	<u> </u>	
	Thief Hatch or Other Vessel Opening	-	-	-			-	-	-
	Valve	2	1/7/2018 4/21/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	-	-
	Compressor	-					-	-	-
	Connector	-	•	-	•		-		
	Covers and Closed Vent Systems	-	-		-		<u>-</u>	·	-
	Flange	· ·	·	<u> </u>		•		<u> </u>	-
2/44/2040	Instrument Meter			· ·		· ·		<u> </u>	
2/11/2018	Open-Ended Line	<u> </u>	-	-	-	-		•	-
	Other	 			-			<u>-</u>	
	Pressure Relief Device		-	-	-		-	•	
	Thief Hatch or Other Vessel Opening	-		-	-	-	-	•	-
	Valve	-	-	-	-	-	-		•
	Compressor	-	·	-	-		•	•	•
}	Connector	<u> </u>	-	-			٠	-	•
•	Covers and Closed Vent Systems Flange	 					-	· · · · · · · · · · · · · · · · · · ·	•
	Instrument	<u> </u>							
4/21/2018	Meter	1	5/14/2018	Handheld OGI	-	-	-		<u> </u>
,,	Open-Ended Line	-		-	-		-	-	-
	Other			-	•		-	-	-
	Pressure Relief Device		-	<u> </u>	-	•	-	<u> </u>	
	Thief Hatch or Other Vessel Opening		-	-	· · · · · · · · · · · · · · · · · · ·	-	-		-
	Valve Compressor	1	5/14/2018	Handheld OGI -	-	-	-		<u> </u>
	Connector	-	-	-	-		-	- 	-
	Covers and Closed Vent Systems	 							
	Flange	-		-	-	-			
	Instrument		-	-			-	-	-
4/22/2018	Meter	-	-	-	-	-	-	•	-
	Open-Ended Line		•	-	-	•	-		-
	Other	-	-	-	-		-	•	-
	Pressure Relief Device	-	-		-	•	-	•	-
	Thief Hatch or Other Vessel Opening	-	•	_ •	-	•	•	- <u></u>	<u> </u>
	Valve			-	-		-	-	•
	Compressor Connector			-	-		-	•	-
	Covers and Closed Vent Systems	-	-		-		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	•
	Flange				-				<u> </u>
	Instrument	 						-	•
5/20/2018	Meter	-	-	-	-		•		·
	Open-Ended Line	-	-		-		-	•	-
	Other	-	-	-		•	-	-	-
	Pressure Relief Device	<u> </u>		<u> </u>	<u> </u>			<u> </u>	•
	Thief Hatch or Other Vessel Opening	1		-	-	-	•	· · · · · · · · · · · · · · · · · · ·	•
	Valve	1 1	5/20/2018	└		<u> </u>	<u> </u>		<u> </u>

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				Table 2.	Monitoring Survey	Results				
						On Delay	of Repair		4.3	
Survey Date	Component	Fugitive Emissions Detected		Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor		-	-	-		•	•	-	
	Connector			•	-	-	-	-	-	
ì	Covers and Closed Vent Systems			-		-	-		•	
	Flange	-			-	-	-	-	-	
	Instrument	-	-	-	-	-	-	-	-	
6/25/2018	Meter				-	-	•	•	•	
	Open-Ended Line	-	-		•	•	-	-	•	
1	Other		-	-	-	-	-		•	
	Pressure Relief Device		-		-	-	•		-	
1	Thief Hatch or Other Vessel Opening						-	-	•	
1	Valve	-	-		-	-	•			

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart 0000a Greater Prudhoe Bay, Alaska

Location:	V Pad	Latitude (NAD83):	70.32732	Longitude (NAD83):	-149.26781
				zonBrace (zoo)	

	Table 1. Monitoring Survey Details ¹													
		Sui	vey			Tech	nician	N	lonitoring Instrume	nt				
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)		Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/18/2017	13:40:00 AM	13:45:00 PM	42	Overcast	0	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GF-320	44401044	The resurvey of one item occurred			
1/5/2018	10:15:00 AM	11:00:00 AM	7	Overcast	5	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	more than 30 days after the repair,			
6/22/2018	9:24:00 AM	3:30:00 PM	47	Fog	1	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	ad 15 items on the delay of repair list were not repaired during the next			
6/27/2018	10:20:00 AM	1:05:00 PM	45	Fog	15	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outdoor items not inspected because of wind		

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2	Mon itoringSurvey	Docuite			
		I		100,02	I I I I I I I I I I I I I I I I I I I		of Repair		T T T T T T T T T T T T T T T T T T T
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor		-	-		-	-	-	-
	Connector		2/14/2018 4/29/2018 4/30/2018	Handheld OGI	6	-	Requires a well shutdown or well shut- in	6	-
1	Covers and Closed Vent Systems		•	-	-	٠	-	-	-
1	Flange		•	-	-	<u> </u>	-	-	-
	Instrument		•	-	-	<u> </u>	•	<u>-</u>	-
before 8/2/2017	Meter		<u> </u>	-	-	-	-	<u> </u>	•
DC:01C 0/2/201/	Open-Ended Line		-	-	-	-	-	<u> </u>	-
	Other		-	-		•		<u> </u>	-
	Pressure Relief Device		-	-	-	•	·	<u>-</u>	-
	Thief Hatch or Other Vessel Opening		-	-	-	-	-	<u> </u>	•
	Valve		5/18/2018 6/22/2108 6/25/2018 7/20/2018	Handheld OGI Bubble Check	9	-	Requires a well shutdown or well shut- in	9	-
	Compressor	-	-	-	•		-	-	-
	Connector	-	-	-		•	-	<u>.</u>	•
	Covers and Closed Vent Systems		•	-	•	•	-		-
	Flange	-	-	-		-		<u> </u>	·
	Instrument			-		-	-	·	<u>-</u>
9/18/2017	Meter	-	•	-		-	-	<u> </u>	-
	Open-Ended Line	-	·	-		-	-	-	-
	Other	-	<u> </u>	-			-	-	
	Pressure Relief Device	-	-	-				<u> </u>	-
	Thief Hatch or Other Vessel Opening			-		-	-	<u> </u>	<u>.</u>
	Valve	·		-	-		-	<u> </u>	•
	Compressor		•	-		•	-		-
	Connector	•	<u> </u>	-		<u> </u>	•		<u>-</u>
	Covers and Closed Vent Systems	•		-		•	-	<u> </u>	•
	Flange	•	·	•	-	-	•		<u> </u>
	Instrument	-	•	<u> </u>		•	-		-
1/5/2018	Meter		-				-		<u> </u>
	Open-Ended Line	-	-	-		-		<u> </u>	<u> </u>
	Other	-	-	-	-	-	-	<u>.</u>	-
1	Pressure Relief Device	-	•			•	-	· · · · · · · · · · · · · · · · · · ·	-
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	•	-	•
	Valve	! -		l .	-	_			_

				Table 2.	Monitoring Survey Results						
						On Delay	of Repair				
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored		
	Compressor		-		-		· ·		•		
}	Connector	4	6/22/2018 6/23/2018	Handheld OGI	-	-		-	•		
	Covers and Closed Vent Systems	-	-	-	-	-	-	-	-		
	Flange			-		-	-		-		
	Instrument	_	·	-	-		-	-	-		
6/22/2018	Meter				•	•	-	-	-		
	Open-Ended Line	-	•	-	-	-	-	-	-		
	Other	-	-	-	-	-	-	-	-		
	Pressure Relief Device		-	-	-			-	-		
ł	Thief Hatch or Other Vessel Opening		•	-	-		-	-	-		
	Valve	3	6/22/2018 7/20/2018	Handheld OGI Bubble Check	1		Requires a well shutdown or well shut- in				
	Compressor	•		-	-	-	-		-		
Ì	Connector	-	-	-	-	-	-	-	-		
	Covers and Closed Vent Systems	-		-	-	-	•	-	-		
	Flange		•	-	-	-	•	-	-		
	Instrument		•	-	-	-	-	-	-		
6/27/2018	Meter	· .		•	-	-			-		
	Open-Ended Line		-	-	-		-	•	•		
i	Other				•		-	-	•		
	Pressure Relief Device						-	•	-		
	Thief Hatch or Other Vessel Opening			-	-		-	-	-		
	Valve		-		•		-	-	-		

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa Greater Prudhoe Bay, Alaska

Location:	W Pad	Latitude (NAD83):	70.29654	Longitude (NAD83): _	-149.09575
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	Table 1. Monitoring Survey Details ¹													
	,	Su	rvey		,	Tecl	hnician	N	ionitoring Instrume	ent	4 (1)	ļ		
Date	Begin Time	End Time	Ambient Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments		
9/9/2017	6:20:00 AM	8:30:00 AM	43	Overcast	0	C. Carter	IR Lvl 2/OGI (6)	Handheld OGI	FLIR GF-320	44401044	The resurvey of five items occurred more than 30 days after the repair.			
1/6/2018	11:00:00 AM	12:35:00 PM	-9	Clear	17	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236	the resurvey date was not recorded for two items, nine items on delay of			
3/30/2018	8:00:00 AM	4:00:00 PM	34	Overcast	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	repair were not repaired during the next planned well shutdown, and 26			
3/31/2018	10:23:00 AM	3:50:00 PM	68	Overcast	0	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Skids		
6/26/2018	10:27:00 AM	11:35:00 AM	44	Fog	5.4	T. Wolfe	IR Lvi 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	shutdown.			

in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results				
						On Delay	of Repair			
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored	
	Compressor				-		-	-	•	
1 [Connector				-		-	-	•	
1	Covers and Closed Vent Systems		•		-	•	-	•	-	
1 [Flange		-		-	-	-	•	•	
	Instrument		1/25/2018	Handheld OGI	1	-	Requires a well shutdown or well shut- in	1		
	Meter 5/31/2018 Bubble Check 7/1/2018 7/3/2018 7/3/2018		Requires a well shutdown or well shut- in	10						
before 8/2/2017	Open-Ended Line			·	•		-	-		
1 1	Other		•	-	-	-	-		<u>-</u>	
	Pressure Relief Device		•			-	-	-	-	
	Thief Hatch or Other Vessel Opening				-	•	-	-	-	
	Valve		1/24/2018 1/28/2018 1/31/2018 2/23/2018 5/31/2018 6/25/2018 6/30/2018 7/1/2018 7/3/2018	Handheld OGI Bubble Check	22	-	Requires a well shutdown or well shut- in	22	-	
l .	Compressor	<u> </u>	·	•	<u>-</u>	:	-	-	-	
1	Connector		<u> </u>	•	<u> </u>			•	-	
Į į	Covers and Closed Vent Systems	•	<u> </u>		٠	•	-		· · · · · · · · · · · · · · · · · · ·	
[]	Flange	<u> </u>	<u> </u>		-	<u> </u>	-	<u> </u>	· · ·	
I	Instrument	<u> </u>	-	-			-		-	
9/9/2017	Meter	_			-	•	-	-	-	
1	Open-Ended Line	<u> </u>		•	<u> </u>			<u> </u>	-	
1 1	Other			-	-			<u> </u>		
	Pressure Relief Device	<u> </u>	<u> </u>	-	-		<u> </u>	<u> </u>	<u>.</u>	
1 1	Thief Hatch or Other Vessel Opening	<u> </u>	<u> </u>	-	•		-	<u> </u>	-	
	Valve	<u> </u>	<u> </u>	-	<u> </u>			<u> </u>	-	

				Table 2.	Monitoring Survey	Results		-	
	Component		T		1		of Repair		
Survey Date		Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored
	Compressor				-	•	•		
	Connector			-	-	-	-		•
	Covers and Closed Vent Systems	-		•	-		-	<u>-</u>	•
	Flange						-	-	•
	Instrument	-			-	-	-		-
1/6/2018	Meter	-			-	-		·	
	Open-Ended Line	-	<u> </u>	<u> </u>	<u> </u>		•	-	-
	Other	<u> </u>		·		-	-		<u> </u>
	Pressure Relief Device	-	<u> </u>		-	-	•	<u> </u>	
	Thief Hatch or Other Vessel Opening		-	-	<u> </u>	-	•		·
	Valve	-		·	-		•	<u> </u>	<u> </u>
	Compressor	-	-	•	-	-	·		-
	Connector	7	3/30/2018 5/12/2018 5/20/2018	Handheld OGI	3	-	Requires a well shutdown or well shut- in		-
	Covers and Closed Vent Systems	-			-	-	-		-
	Flange	-	-	•	-	-	-	-	-
	Instrument	-	-		•	•	-	-	-
	Meter	-	-		•	-	-		-
3/30/2018	Open-Ended Line	<u> </u>			-	-	.	•	-
	Other	-			-		-	•	-
	Pressure Relief Device	<u> </u>		-	-		-	<u>-</u>	•
	Thief Hatch or Other Vessel Opening	<u> </u>	-	·	<u> </u>	•	-	-	•
	Valve	11	5/10/2018 5/31/2018 6/30/2018 7/1/2018 7/3/2018	Handheld OGI Bubble Check	11	1	Requires a well shutdown or well shut- in	1	-
	Compressor	-	-	•	•		-	-	
	Connector	-	-			-	-	<u> </u>	-
	Covers and Closed Vent Systems	-	-	-		-	-	-	-
	Flange	•	-	-	•		-	-	-
	Instrument		-	-			-	•	-
3/31/2018	Meter	-	-	-	-		•		-
	Open-Ended Line	·	-	-	-		-	<u> </u>	
	Other	-	-	-	-	-	•	<u> </u>	•
l	Pressure Relief Device	<u> </u>	<u> </u>	<u> </u>	-		•	-	-
	Thief Hatch or Other Vessel Opening	<u> </u>	· · · · ·		-		-	<u> </u>	•
	Valve	-	-		-	•	-	<u> </u>	<u> </u>
	Compressor		-	•	-		-	-	-
	Connector	-		•	-			·	-
	Covers and Closed Vent Systems	-		-	-			<u> </u>	-
	Flange		-	-	-	-	-	<u> </u>	•
i I	Instrument	<u> </u>	<u> </u>		-	<u> </u>	-	<u> </u>	· · · · · · · · · · · · · · · · · · ·
6/26/2018	Meter	<u> </u>	<u> </u>	•	-	<u> </u>		<u> </u>	•
	Open-Ended Line	-	•	<u> </u>	-	-	-	·	•
	Other	-	-			-	•		
	Pressure Relief Device	<u> </u>		-	-	<u> </u>	-		•
	Thief Hatch or Other Vessel Opening	<u> </u>	-		-	<u> </u>		 	-
	Valve	1	7/28/2018	Bubble Check	1	-	Requires a well shutdown or well shut- in	1	

BPXA Fugitive Emission Monitoring Survey Recordkeeping Form - 40 CFR 60 Subpart OOOOa Greater Prudhoe Bay, Alaska

Location: Z Pad Latitude (NAD83): 70.29812 Longitude (NAD83): -149.19765

	Table 1. Monitoring Survey Details ¹											
Survey					Technician		Monitoring Instrument					
Date	Begin Time	End Time	Amblent Temp (°F)	Sky Conditions	Maximum Wind Speed (mph)	Name	Training & Experience (Years)	Туре	Make/Model	Serial Number	Deviations From Monitoring Plan	Comments
9/23/2017	8:18:00 AM	9:10:00 AM	36	Overcast	6	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GF-320	44401573		
1/6/2018	11:00:00 AM	12:35:00 PM	-9	Clear	17	H. Denio	IR Lvl 2/OGI (14)	Handheld OGI	FLIR GFX-320	74900236		
4/4/2018	9:30:00 AM	10:03:00 AM	22	Partly Cloudy	0	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		
4/9/2018	9:55:00 AM	2:50:00 PM	9	Clear	16	J. Kazense	IR Lvl 2/OGI (3)	Handheld OGI	FLIR GFX-320	74900242]	Well houses
4/16/2018	9:25:00 AM	1:02:00 PM	58	Clear	0	T. Peria	IR Lvl 1/OGI (3)	Handheld OGI	FLIR GFX-320	74900236	17 items on the delay of repair list	Indoor mods
5/23/2018	10:35:00 AM	4:10:00 PM	32	Overcast	12	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242	planned well shutdown.	Outside piping and modules, only scanned in lower wind conditions below 6 mph
5/25/2018	12:10:00 PM	3:45:00 PM	26.8	Overcast	9	T. Wolfe	IR Lvl 3/OGI (24)	Handheld OGI	FLIR GFX-320	74900242		Outside piping and modules, only scanned in lower wind conditions below 6 mph

¹ in accordance with 40 CFR 60.5397a(g)(1), fugitive emissions monitoring is performed on an annual basis because the Greater Prudhoe Bay field is located on the Alaskan North Slope.

				Table 2.	Monitoring Survey	Results	The state of the s	 	
		Detected	s Successful Repair Date(s)	Instrument Type			of Repair		Difficult/ Unsafe Components Monitored
Survey Date	Component				During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	
	Compressor		-	-	-		-	-	-
	Connector		4/30/2018	Handheld OGI	1		Requires a well shutdown or well shut- in	1	
1	Covers and Closed Vent Systems		-	-		-	-	-	-
	Flange				•	-	-	•	-
	Instrument		•	-		-	-	-	•
	Meter					-	-	-	•
1	Open-Ended Line			-			-	-	•
before 8/2/2017	Other						•		-
	Pressure Relief Device						-	-	
	Thief Hatch or Other Vessel Opening			-		-	-	-	-
	Valve		3/12/2018 5/12/2018 5/23/2018 7/21/2018 7/22/2018 7/27/2018	Handheld OGI Bubble Check	16	3	Requires a well shutdown or well shut- in	16	-
	Compressor				-	-	-	<u> </u>	•
1	Connector	_ :			•		-	-	-
	Covers and Closed Vent Systems		-	-		-	-	•	-
1	Flange		-		•	-		<u> </u>	-
	Instrument			-	•		-		
9/23/2017	Meter			-	•		-	•	-
1	Open-Ended Line		-	-	•	•	-	•	•
1	Other	-		-	-		-	<u> </u>	*
1	Pressure Relief Device		-	-			-	•	٠
	Thief Hatch or Other Vessel Opening	-	-	-			-	-	-
	Valve	-	-	-			-	•	•

	Table 2. Monitoring Survey Results										
					On Delay of Repair						
Survey Date	Component	Fugitive Emissions Detected	Successful Repair Date(s)	Resurvey Instrument Type	During Reporting Period	As of August 2, 2018	Explanation	Not Repaired as Required	Difficult/ Unsafe Components Monitored		
	Compressor	-		-	-	•	•		-		
l i	Connector			-			·	-	-		
i	Covers and Closed Vent Systems	-	-	•	-		<u> </u>		•		
	Flange	<u> </u>	·		·	<u> </u>	-	-	· ·		
1	Instrument	<u> </u>	•	•	-		-		·		
1/6/2018	Meter	ļ <u>:</u>			-	·	-	-	·		
	Open-Ended Line	<u> </u>	ļ .	•	-		· · · · · · · · · · · · · · · · · · ·		•		
	Other	<u> </u>	ļ		-		-		•		
	Pressure Relief Device	-		<u> </u>	-	·	-	-	· ·		
	Thief Hatch or Other Vessel Opening		· -	-	-		-		-		
	Valve	-	·				<u> </u>	·			
	Compressor	<u> </u>	<u> </u>	•	-			<u> </u>			
	Connector Covers and Closed Vent Systems	 	:			-	<u> </u>	-	· ·		
	Flange	 	<u> </u>						-		
l	Instrument	 	<u> </u>	-	-						
4/4/2018	Meter	 					<u> </u>	<u> </u>	· ·		
4/4/2016	Open-Ended Line	† .									
	Other	<u> </u>							<u> </u>		
	Pressure Relief Device	 	-						· · · · · · · · · · · · · · · · · · ·		
	Thief Hatch or Other Vessel Opening		·	_							
	Valve	1	4/4/2018	-				-	-		
	Compressor			-							
	Connector	4	4/9/2018 4/10/2018 4/11/2018 4/12/2018	Handheld OGI	-	-	-	-	-		
	Covers and Closed Vent Systems		-			-	-	-			
. /0 /0040	Flange	-	-	-		-		-	-		
4/9/2018	Instrument			-		-	•	-	-		
	Meter	-		-	•		•	-	-		
	Open-Ended Line	-		-			•	•	-		
	Other	-	-	-	-		•				
	Pressure Relief Device	-		-	-		•	<u>-</u>	-		
	Thief Hatch or Other Vessel Opening	-	<u> </u>	-	-	·	<u> </u>	-			
	Valve	-		-		-	<u></u>		-		
	Compressor	-		-			• • • • • • • • • • • • • • • • • • • •	·	-		
	Connector		-	-	-	•	<u> </u>	<u></u>	<u> </u>		
	Covers and Closed Vent Systems	•	-		•		<u> </u>				
	Flange	-	-		-		-	<u> </u>	•		
	Instrument	-	-	-	-	-	-	-	<u>-</u>		
4/16/2018	Meter	-		•	-		-	<u>-</u>	<u> </u>		
	Open-Ended Line	-			-			·	<u>-</u>		
	Other	-		•	-		-	-	•		
	Pressure Relief Device	-		-	-			•	-		
	Thief Hatch or Other Vessel Opening		-	-	-		•	-			
	Valve	1	4/16/2018	-	-	•	-	-	-		

	Table 2. Monitoring Survey Results										
	Component	Fugitive Emissions Detected	s Successful Repair Date(s)	Resurvey Instrument Type		On Delay	of Repair	Not Repaired as Required	Difficult/ Unsafe Components Monitored		
Survey Date					During Reporting Period	As of August 2, 2018	Explanation				
	Compressor	-	-		-	-		-	•		
	Connector	2	5/23/2018	-	-	-	•	-	•		
!	Covers and Closed Vent Systems	-	-	•	-		·				
ļ.	Flange	-	-	-	-	-		· · · · · · · · · · · · · · · · · · ·	-		
	Instrument	-	-	-	-	-	-	-	-		
E /22 /2010	Meter	-		-	-		-	-	-		
5/23/2018	Open-Ended Line	· -	-		-	-					
Ì	Other	-	-			-	-				
	Pressure Relief Device	-	-	-	•	-	-	-	-		
	Thief Hatch or Other Vessel Opening	-	-	-	-	-	-	-	-		
	Valve	6	5/23/2018 7/21/2018	Handheld OGI Bubble Check	4	1	Requires a well shutdown or well shut- in	-	-		
	Compressor	-	-		-		-	-	•		
	Connector	-	-		-	-	-	-	-		
	Covers and Closed Vent Systems	-	-		-	-	-	-			
	Flange	-	-		-	-		-	-		
	Instrument	-	-	-	-	-	-	-	•		
5/25/2018	Meter	-	-	-	•	-	•	-	-		
3/23/2018	Open-Ended Line	-	-	-		-	-		-		
	Other		-	-	-	•	-		-		
	Pressure Relief Device	-	-	-	-		-	-	-		
l	Thief Hatch or Other Vessel Opening	-	-				-	-			
	Valve	2	7/21/2018	Bubble Check	2	-	Requires a well shutdown or well shut- in	-	-		